

Rebuilding a Resilient Britain: The Future of Work

Report from Areas of Research Interest (ARI) Working Group 7

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Foreword

The COVID-19 pandemic presents a fundamental challenge to our society, economy, and ways of living. We need to ensure that our response to these challenges is informed by the best possible evidence, by engaging with the right stakeholders. As a first step toward this goal, the 'Rebuilding a Resilient Britain' programme of work was launched in July 2020 to bring together researchers, funding bodies and policy makers to identify evidence and uncover research gaps around a set of cross-cutting Areas of Research Interest.

ARIs were initially developed in response to the recommendations of the 2014 Nurse Review of Research Councils, which called on government departments to communicate clearly where their research objectives lie. The ARIs take the form of an annually updated list of priority research questions, which invite the academic community to engage with government departments to inform robust evidence-based policy making.

With the advent of the COVID-19 pandemic, however, it became clear that the societal issues affecting Britain's recovery over the medium- to long-term cut across departments. The ESRC/GOS ARI Fellows therefore worked with the CSAs and Council for Science and Technology to identify a set of ARIs relevant across all departments and sectors. Under the meta-themes of **Rebuilding Communities**, **Environment and Place**, and **Local and Global Productivity**, each led by two CSAs, nine Working Groups were formed:

Rebuilding	Environment and Place	Local and Global
Communities led by	led by Robin May (FSA	Productivity led by Paul
Robin Grimes (MoD	CSA) and Andrew Curran	Monks (BEIS CSA) and
Nuclear CSA) and Osama	(HSE CSA)	Mike Short (DIT CSA)
Rahman (DfE CSA)		
1. Vulnerable	5. Supporting Lower-	8. Local and National
Communities	Carbon Local Economies	Growth
2. Supporting Services	6. Land Use	9. Trade and Aid
3. Trust in Public	7. Future of Work	
Institutions		
4. Crime Prevention		

With input from the Universities Policy Engagement Network, UKRI, the What Works Centres, and the National Academies, each Working Group was populated with subject experts and representatives from funding bodies and government departments.

The working groups met several times over the summer and used their networks to:

a. identify a diverse range of existing or ongoing research,

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- synthesise evidence which can be quickly brought to bear on the issues facing departments
- c. identify research gaps in need of future investment.

This report represents the culmination of the work of one of these Working Groups. The expedited timeframe of this work, along with their specific areas of expertise, led to some variation in how each group approached the task. It should be noted that this document represents the views of the Working Group members and is not indicative of government policy.

As well as providing deep expert reflection on the cross-cutting ARIs, it is hoped that these reports, and the work that led to it, will prompt further collaboration between government, academia, and funders. Working across government and drawing from the extensive expertise of our academic community will be essential in the recovery from the COVID-19 pandemic, to rebuild a resilient Britain.

Kathryn Oliver and Annette Boaz

ESRC/GOS ARI Fellows, on behalf of the ARI team within GOS

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List of acronyms

Al Artificial Intelligence

ARI Area of Research Interest

AHRC Arts and Humanities Research Council

BAME Black, Asian and Minority Ethnic

BBSRC Biotechnology and Biological Sciences Research Council
BEIS Department for Business, Energy and Industrial Strategy

CBI Confederation of British Industry

CJS Criminal Justice System

CO Cabinet Office

COVID-19 Coronavirus Disease 19
CSA Chief Scientific Advisor

DCMS Department for Digital, Culture, Media and Sport
Defra Department for Environment, Food and Rural Affairs

DfE Department for Education
DfT Department for Transport
DH Department of Health

DHSC Department of Health and Social Care
DIT Department for International Trade
DWP Department for Work and Pensions

EPSRC Engineering and Physical Sciences Research Council

ESRC Economic and Social Research Council

FCDO Foreign, Commonwealth and Development Office

FSA Food Standards Agency

GCSA Government Chief Scientific Advisor
GOS Government Office for Science
HMRC Her Majesty's Revenue and Customs

HMT Her Majesty's Treasury

HO Home Office

HSE Health and Safety Executive

MHCLG Ministry of Housing, Communities and Local Government

MoD Ministry of Defence MoJ Ministry for Justice

MRC Medical Research Council

NERC Natural Environment Research Council
NGO Non-Governmental Organisations

NICE The National Institute for Health and Care Excellence

ONS Office for National Statistics
PHE Public Health England
R&D Research and Development

SAGE Scientific Advisory Group for Emergencies

SME Small and Medium-sized Enterprises

STEM Science, Technology, Engineering, and Mathematics

STFC Science and Technology Facilities Council

UKRI UK Research and Innovation

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1. Chair's introduction

During the COVID-19 pandemic we have witnessed dramatic changes to paid work, with many people working from home where possible. What we do not yet know is whether we are witnessing a step-change. Will the proportion of work not done at the workplace be higher in the future? The implications of major changes in how and where people work are considerable for transport systems and this is only now being thought about.

The context of COVID-19 has sharpened and strengthened existing inequalities in the labour market and created new ones, for example those who can and those who cannot work from home. Women working from home have experienced an increased burden with respect to caring responsibilities. The current and expected job losses will likely fall on certain groups, for example the young and the old in the labour market.

Prior to COVID-19 we often lacked fine grained enough data and therefore understanding of the work experiences of different groups, such as the self-employed, black and minority ethnic groups, differently abled populations and those suffering health conditions; this is now even more pressing.

There is a lack of robust evaluations of the impact of flexible work from either an employee or an employer perspective, for example, why do some people get flexibility and others not? Equally, we lack robust evaluations of wellbeing and health and safety interventions and why adjustments to work are given to some but not others.

Overall, there is a tendency in research on these matters to concentrate on the supply side – how do we train, coach, and provide adjustments for people to fit them to existing work. The demand side – are employers willing and able (is it still efficient/profitable) to respond to a diverse and complicated workforce – is much less researched and understood.

There appears to be no overview of research funding streams. A lot of COVID-19 related (and COVID-19 relevant) funding is being dispensed at the moment by a range of funders, for example UKRI and individual research councils, the Industrial Strategy Challenge Fund, and HSE COVID-19 Competition of Ideas. However, there are limited means for someone in Government to be able to quickly and easily see what is being funded and by whom. We include some of the relevant funding that the working group identified in Annex 6.

The Chair would like to thank everyone in the working group for their contributions to this endeavour at what has been a very busy time for everyone.

2. How the evidence was identified and collated

The ARIs were identified by departments and prioritised by CSAs. The ARI Fellows presented a set of priority areas to the CSA network and the GCSA who identified which topics would be of most use to take forward. The working group used its own expertise and reached out to its networks to collect existing evidence in each of its ARIs. For ARIs 6 and 8 a literature search was undertaken using the Database Business Source Complete (see extended Key messages documents in Annex 5 for further explanation of the methodology employed). The Chair reviewed the evidence collected in August and invited an expert on transport to join the group as existing expertise within the group was inadequate for considering ARIs 1 and 2.

The group met for a second time to further review the evidence, to agree key messages and to identify research gaps. This meeting agreed to cluster the ARIs into three groups as discussed below.

The group wishes to express it thanks to Rachel Phillips, our facilitator, and Izzy Robinson our GOS administrator, for the considerable work they put in to pull resources together for this document and to aid with the overall management of the group.

3. Key messages

3.1. Cross-cutting themes

This section relates to ARI 10 – Supporting and identifying individuals with multiple complex needs.

No specific evidence was collected for this ARI, but it was judged to be a crosscutting theme for all the others. Our ability to identify and support diverse needs is often hampered by the lack of sufficiently fine-grained data.

The notion of 'flexible work' needs to be deconstructed – not all flexible work is good, for example some people on zero-hours contracts are working extremely flexibly but without security of income and with possible detriment to health and non-work life.

There is a tension in wellbeing and health and safety initiatives between a focus on individuals and their limitations versus a more joined up sense of focusing on what people can do. What is needed is the ability to address both specific adjustments and a wider concern for wellbeing.

COVID-19 has exacerbated existing inequalities in access to good work.

A key concern was the lack of join up across government departments (take work flexibility - as an issue it comes under BEIS's remit, but working with the unemployed

or disabled is DWP's remit, whilst the Government Equalities Office leads on protected characteristics).

3.2. Cluster 1

This cluster includes:

- ARI 1 Preventing and reducing overcrowding on commutes and in the workplace and supporting active travel choices and reduced transport capacity.
- ARI 2 Ensuring transport is inclusive, accessible, age friendly to all and addresses social inclusion and social mobility.

In addition to technical solutions it is necessary to rethink the connection between transport and work. Although transport is clearly important in terms of getting people back to work, we must not divorce the 'transport', getting from A to B, from the end state demand of the workplace. There is no point in opening up the transport system if the workplaces cannot accommodate the numbers of people (e.g. the "Cheesegrater" building in the City of London will take about 3 hours to fill under physical distancing rules, so delivering people to the building should be scaled to its ability to receive them).

Transport operational planning needs to take into account the pipeline 'door-to-desk' over a longer time period, instead of 'door-to-door' with the timeline being simply to deliver by 9am. It is this latter approach that causes the peak hour commute, and thus the crowding issue. So there is work to be done on enabling employers to see that their work situation is within a complete pipeline and their own ability to function depends on them amending their practices to coincide with the capabilities of the pipeline (e.g. staggering presence-hours at the formal workplace and devising working patterns that allow for a combined on-site/off-site working pattern wherever possible).

We are stuck in a binary that people work at 'work' or at home. The latter presents problems for many people and is also by definition isolating and works against the sociality need of human beings. So alternative venues need to be sought and defined – probably there is a good market for this – and facilitated. This requires thinking about location of such activity and the consequential impacts on the design of the transport networks, and rather tears up the rule books on transport planning and modelling, where the fundamental assumptions are broken. We need to understand the proxemics behind people's social interactions, realising that transport and work are actually social interactions, and to realise that physical distancing challenges the capability for sociality because it breaks the physical/physiological/psychological/neurological processes that set the classic proxemics in the design of places and systems (including public transport vehicles).

This needs to be understood a lot better – the confusion between the terms "social distancing" and "physical distancing" is a good example of this lack of understanding,

and it affects design and operation decisions. Public transport and facility design need to be rethought to operate with lower occupancies. The psychology of people in space and their interactions needs to be much better understood as a complete multidisciplinary concept – this needs new approaches to the science and its methods to ensure that the understanding is sufficient for the necessary rethinking.

Engineering solutions can help reduce the risk of transmission on public transport and at interchanges – there are specific challenges depending on the mode and design constraints of the carriages.

With respect to the inclusivity of transport, a lot of existing work in this area has been based on defining and understanding disabilities, rather than the understanding of capabilities. We should be designing systems to enable people to do what they are capable of, rather than to offset what they are unable to do. This applies to the workplace and work as well as to transport systems. Improvements for specific groups such as elderly travellers or people with sight or mobility issues are likely to improve access and ease of transport for everyone.

3.3. Cluster 2

This cluster includes:

- ARI 3 Health and safety of homeworking across age-groups.
- ARI 4 Supporting flexible and home-working practices, including employer responsibilities, working regulations and required infrastructure
- ARI 5 What new and better approaches are there for delivering joined-up, tailored and personalised health and work support? How can we effectively engage employers, health professionals and other stakeholders to improve work and health outcomes?
- ARI 6 What are the current and future trends in disabilities and health conditions that working-age people face that require targeted policy measures to improve employment, health and wellbeing outcomes?
- ARI7 Effects and risks of social distancing on working patterns and practices, and how these will affect different groups and sectors.

The group decided to cluster these ARIs together because they all focus on the fact that individuals may need adjustments in temporal, locational or physical aspects of work for a wide range or combination of reasons: mental or physical health, disability, caring responsibilities or age. Health and safety and occupational health professionals have an important role to play in this but are not the only ones impacting upon work and health outcomes.

Research is clear that the trends in disability and long-term health conditions in the UK point to increasing numbers of prime working age and older people aged

65+ living with one or more conditions that impact on their capacity to work. With an ageing workforce and increasing state pension ages, managing health conditions at work will become increasingly important for both individuals and employers (see extended discussion of ARI 6 in Annex 5). Early data on the impact of COVID-19 suggests that mental health has been worsened by the pandemic and there is evidence emerging that people who have survived COVID-19 may suffer some long-term health detriments. Both of these developments have impacts on the ability to work.

In the UK, occupational health sits outside the NHS and individuals get care in different places. There may be a lack of join up between what happens in the workplace, what is offered by occupational health, public health interventions and General Practice.

We do not have a clear picture of why some people get adjustments and others do not and how effective adjustments are for employees or employers. This is particularly acute in the case of mental health, where there are issues of disclosure and a generalised sense that mental health issues are perceived to be more difficult to manage.

Flexible working is widely seen as a solution to some of these issues, but research demonstrates the uneven access to flexibility and its uneven success in meeting employees and employers' needs. We do not have a comprehensive sense of the adjustments that do get made or evaluations of their success from an employee or employer perspective.

The sudden rise in working from home due to COVID-19 lockdown is yet to be clearly analysed, but it is evident that there have been winners and losers. It is too early to judge whether we have seen a step-change in the degree of homeworking. Prior to COVID-19, studies have repeatedly identified lower-skilled workers as having reduced access to flexible working. They may also be less able to consider reductions in income that might arise from reducing working hours. Self-employment is a significant but overlooked component of UK homeworking.

Evidence on the effects and risks of social distancing on working patterns and practices is only just beginning to emerge, primarily from ONS surveys.

3.4. Cluster 3

This cluster includes:

- ARI 8 What are the different ways to define and measure labour market progression and sustainable work? How does this vary between groups and at different times in people's lives?
- ARI9 Identifying populations at risk of joblessness and poverty and intervening and evaluating successfully to prevent poor outcomes.

The Chartered Institute of Personnel and Development Good Work Index has been developed in collaboration with academic partners and identifies seven dimensions of job quality: pay and benefits; employment contracts; work-life balance, job design and nature of work; relationships at work; employee voice; health and wellbeing. Poor job quality (and a low-skills equilibrium) is seen as a widespread problem in the UK with implications for individual wellbeing and business efficiency and productivity. Underemployment in sectors such as retail remains a significant problem for groups of low-paid workers.

There is a need to widen the criteria for successful progression beyond increases in pay and to ensure jobs match workers' needs and preferences, and that workers are enabled to develop stability/security (including guaranteed hours/stable schedules) to provide a platform for developing skills and/or strategies for internal or external wage progression.

Progression opportunities vary by region and sector as well as by group and life stage. Six key groups can be identified as facing significant barriers to progression: those with caring responsibilities or health issues; black and minority ethnic groups; women; young people; older workers; and those on Universal Credit (see extended key messages on ARI 8 in Annex 5). These groups are also at risk of joblessness and poverty.

Older workers face multiple intersecting barriers to employment, such as: employers' ageist attitudes regarding recruitment; health problems, and unpaid caring responsibilities (which affect women more than men due to gendered social roles).

The COVID-19 pandemic has severely dented the career prospects of young people and may have a prolonged negative economic impact on them as a result. It may be more difficult for young people to move up the career ladder.

Overall, the specific nature of the economic shock associated with COVID-19 has strengthened many old and deep inequalities. There is a need to avoid exacerbating inequalities in income, health and education, and by gender, ethnicity and age.

Evidence on the efficacy of Active Labour Market Programmes (ALMP) is mixed. Individual Placement and Support (IPS) is a key example of vocational support for people with health conditions or disabilities and the effectiveness of IPS for wider cohorts has been examined but is expensive. Research on Work Coaches working with Universal Credit recipients has identified large caseloads and complex needs of some claimants as barriers to effectiveness.

4. Evidence Gaps

The evidence gaps are discussed with respect to the three clusters of ARIs identified in Section 4. For further elaboration of evidence gaps see Annex 4.

4.1. Cluster 1

Serious study of physical distancing and the impact in confined spaces (e.g. public transport, offices etc.).

If the numbers using public transport need to stay lower than pre-COVID, and we wish to resist an expansion of private vehicle use for climate change reasons, then we need feasibility studies on e-scooters and other less polluting means of transport.

4.2. Cluster 2

We need to monitor longer term home working trends and employer intentions - are we now seeing a permanent step change in homeworking?

Research is needed on the productivity impacts of working at home. Does it result in a loss of teamwork and team "spark" for innovation?

We need more evidence as to why workers are unable to request/gain access to flexible working – it may be the issues around fear of negative career outcomes or due to managers not giving access.

Occupational health reform is needed to enable employers to gain the knowledge, skills, and support to intervene when health and disability issues arise. Investigation of possible routes for reform are urgent.

We need to better understand the current and future trends in disabilities and health conditions and what is common about them and what is specific. This is a conceptual piece of work so that we better understand what needs a general and what needs a specific response.

Investigation of novel approaches to vocational support for people with health conditions or disabilities, particularly approaches that involve a range of parties alongside individuals, such as employers, healthcare professionals and employment support providers.

Research is needed which provides more in-depth descriptions of experiences of adjustments and accommodations among employees with disabilities and health conditions and more rigorous evaluations of their effectiveness and cost effectiveness with a view to helping overcome barriers to implementation.

4.3. Cluster 3

Research is needed to expand the evidence base on how work coaches advise on options for progression. This includes the extent to which advice reflects: i) knowledge of progression opportunities/job security with specific employers ii) awareness of family circumstances, childcare, housing etc. and iii) available support for in-work progression.

In the COVID-19 context there are indications that older workers (as well as younger workers) may be at particular risk of job loss. Research is needed to investigate the reasons for this, and to seek the perspectives of older workers about the impact of COVID-19 on their working lives and plans for retirement.

We need to push for better data collection on minority populations.

Annex 1: List of participants and contributors

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Facilitator: Rachel Philips, Edge Effects

Working group members:

Bola Akinwale, DWP Emily Andrews, Centre for Ageing Better Simon Armitage, HSE Professor Katie Bailey, Kings College London Rob Gillies, NERC Jo Harris-Roberts, HSE Professor Graham Loomes, University of Warwick Jane Nicolson, EPSRC Dr Jane Parry, University of Southampton Harry Ravi, BEIS Professor Jill Rubery, University of Manchester Dr Alexandra Smyth, Royal Academy of Engineering Magdalena Soffia, What Works for Wellbeing Professor Nick Tyler, UCL John Wilkinson, DHSC Paul Willgoss, HSE Tim Willis, DWP

Additional experts consulted:

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Professor Joanne Crawford, Victoria University of Wellington
Ms Ceri Hughes, Alliance Manchester Business School
Professor Wendy Loretto, University of Edinburgh Business School
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Annex 2: List of ARIs considered by this group

- 1. Preventing and reducing overcrowding on commutes and in the workplace and supporting active travel choices and reduced transport capacity.
- 2. Ensuring transport is inclusive, accessible, age friendly to all and addresses social inclusion and social mobility.
- 3. Health and safety of homeworking across age-groups.
- 4. Supporting flexible and home-working practices, including employer responsibilities, working regulations and required infrastructure.
- 5. What new and better approaches are there for delivering joined-up, tailored and personalised health and work support? How can we effectively engage employers, health professionals and other stakeholders to improve work and health outcomes?
- 6. What are the current and future trends in disabilities and health conditions that working-age people face that require targeted policy measures to improve employment, health and wellbeing outcomes?
- 7. Effects and risks of social distancing on working patterns and practices, and how these will affect different groups and sectors.
- 8. What are the different ways to define and measure labour market progression and sustainable work? How does this vary between groups and at different times in people's lives?
- 9. Identifying populations at risk of joblessness and poverty and intervening and evaluating successfully to prevent poor outcomes.
- 10. Supporting and identifying individuals with multiple complex needs.

Annex 3: Evidence and resources relevant to ARIs

ARI 1: Preventing and reducing overcrowding on commutes and in the workplace and supporting active travel choices and reduced transport capacity.

Resource	Key Messages
National Engineering Policy Centre (2020)	Engineering solutions can help reduce the risk of transmission on public transport and at
rapid review of the engineering approaches	interchanges – there are specific challenges depending on the mode and design
to mitigate the risk of COVID-19	constraints of the carriages.
transmission on public transport.	

ARI 3: Health and safety of homeworking across age-groups.

Resource Key Messages

Pope, M.H., Lim Goh, K., & Magnusson, M.L. (2002). Spine Ergonomics. Annual Review of Biomedical Engineering. Vol. 4, p49.

ONS (2020a). Coronavirus and homeworking in the UK labour market: 2019.

https://www.ons.gov.uk/employmentandlabou rmarket/peopleinwork/employmentandemploy eetypes/articles/coronavirusandhomeworkingi ntheuklabourmarket/2019#ages-of-homeworkers (Accessed July 2020).

Existing evidence

Recent surveys before and during the COVID-19 pandemic provide us with evidence on the prevalence of home working in Great Britain. For example, 1 in 20 workers reported working mainly from home prior to the COVID-19 pandemic in 2019, with older workers two and half times more likely to be working from home than younger workers (ONS, 2020a). COVID-19 has significantly increased the frequency of homeworking, and whilst homeworking numbers have fallen since the easing of the lockdown began, 27% of working adults were still working at home exclusively in the week to 12 July 2020 (ONS, 2020b). We also know that some of the features of home working, such as fixed postures and prolonged seating, are risk factors for musculoskeletal (MSK) conditions (Pope, Lim Goh & Magnusson, 2002).

Emerging evidence also points to health difficulties home workers are currently experiencing, however it is difficult to separate out the potential contributions of home

Bevan S., Mason B. & Bajorek Z. & (2020). Institution of Employment Sciences Working at Home Wellbeing Survey: Interim findings. https://www.employment-

studies.co.uk/resource/ies-working-home-wellbeing-survey (Accessed July 2020).

ONS (2020b). Coronavirus and the social impacts on Great Britain: 17 July 2020, Opinions and Lifestyle Survey (COVID-19-19 module).

https://www.ons.gov.uk/peoplepopulationan dcommunity/healthandsocialcare/healthand wellbeing/bulletins/coronavirusandthesociali mpactsongreatbritain/17july2020 (Accessed July 2020).

working from other aspects of the wider COVID-19 pandemic and associated lockdown restrictions to these experiences. The Institute for Employment Studies has carried out a survey of homeworkers during the pandemic. The sample for this survey was relatively small and self-selected, but interim findings can still provide an indication of some of the potential health issues that have been experienced. For example, more than half reported new aches and pains, such as neck pain (58%), shoulder pain (56%) and back pain (55%) compared to normal, with effects on health.

Behaviours and sleep also reported. Three quarters of respondents also reported that their employer had not carried out a health and safety risk assessment of their homeworking arrangements (Bevan, Mason & Bajorek, 2020).

Future evidence priorities

The evidence base in this area could be strengthened by research which explores:

- Longer term home working trends and employer intentions are we now seeing a permanent step change in homeworking?
- Practical methods of minimising the risk of homeworking to health, including the role of occupational health advice and interventions for home workers, and to support employers to support the health of homeworking staff.

Relevance to policy

This area of evidence is relevant for informing the development of current and future policy relating to the health and wellbeing of working age people, interventions delivered through the workplace or aimed at employers, and occupational health reform. It will also help inform our general strategy for improving work and health outcomes, including tailoring and targeting of policies to reduce sickness absence, prevent job loss associated with ill health and support improved physical and mental health of people in employment. These issues are actively being considered. For example, in 2019 the Government consulted on measures to reduce job loss related to ill-health with proposals to boost Government support available and encourage all employers to take early and supportive action to help staff who are managing health conditions in work.¹

¹ https://www.gov.uk/government/consultations/health-is-everyones-business-proposals-to-reduce-ill-health-related-job-loss

Falkingham et al; Centre for Population Change briefing (2020). Older and home alone in lockdown: how has support from family, friends and neighbours changed?

http://www.cpc.ac.uk/docs/2020 PB52 Older _and_home_alone_in_lockdown.pdf

Gayer-Anderson, C. et al (ESRC Centre for Society & Mental Health, King's College London, 2020). https://esrc.ukri.org/files/news-events-and-publications/evidence-briefings/impacts-of-social-isolation-among-disadvantaged-and-vulnerable-groups-during-public-health-crises/

The majority of older people received support from the wider community. During the pandemic lockdown, a significant proportion of older people received an increased level of help from existing caregivers or received support from new caregivers. This was especially the case amongst those living alone or with a partner also aged 70 and over.

However, there is also evidence that older people with difficulties in performing key activities of daily living faced a higher risk of receiving less care and support during the lockdown, raising the spectre that some older people are not receiving adequate social care.

Overall, there is a relatively small amount of research that has considered the impacts of social isolation on vulnerable, disadvantaged, and marginalised populations in the context of pandemics and other public health crises. Most of this research concerns health care workers and children and adolescents. For some groups, e.g. refugees, the homeless, and women in abusive relationships, we found no or few (e.g. minority ethnic groups) relevant studies.

ARI 4: Supporting flexible and home-working practices, including employer responsibilities, working regulations and required infrastructure.

Resource

Franche, R-L., Cullen, K., Clarke, J., Irvin, E., Sinclair, S., Frank, J., Institute for Work & Health (IWH) & Workplace-Based RTW Intervention Literature Review Research Team (2005). Workplace-based return-to-work interventions: a systematic review of the quantitative literature. Journal of Occupational Rehabilitation. Vol. 15, p607.

DWP (2014). Health and wellbeing at work: a survey of employees. https://www.gov.uk/government/publications/health-and-

Key Messages

Existing evidence

Evidence in this area generally relates to workplace accommodations for people with health conditions and disabilities. This evidence suggests that effective workplace accommodations can help shorten the length of workplace absences and/or increase the job security of ill or disabled employees with physical conditions. (Franche et al., 2005; Nevala et al., 2015; Padkapayeva, et al., 2017). Beyond work productivity and employment outcomes, working with accommodations also protects quality of life, and enhances attributes or factors which support both physical health (improved symptom management, reduced fatigue) and

wellbeing-at-work-survey-of-employees. (Accessed July 2020).

DWP (2015). Understanding the journeys from work to Employment and Support Allowance (ESA). https://www.gov.uk/government/publications/understanding-the-journeys-from-work-to-employment-and-support-allowance. (Accessed July 2020).

Nevala, N., Pehkonen, I. Koskela, I., Ruusuvuori, J. & Anttila, H. (2015). Workplace accommodation among persons with disabilities: a systematic review of its effectiveness and barriers or facilitators. Journal for Occupational Rehabilitation. Vol 25, p432.

Padkapayeva K., Posen A., Yazdani A., Buettgen, A. Mahood, Q., & Tompa, E. (2017). Workplace accommodations for persons with physical disabilities: evidence synthesis of the peer-reviewed literature. Disability and Rehabilitation. Vol. 30 (21), p 213

Lindsay, S., Cagliostro, E. & Carafa, G. (2018). A systematic review of workplace disclosure and accommodation requests among youth and young adults with disabilities. Disability and Rehabilitation. Vol. 40 p2971.4.

psychological health (improved self-efficacy, social support, and reduced stress) (Lindsay, Cagliostro & Carafa, 2018).

Systematic reviews have described the barriers and facilitators of using and implementing work accommodations provided to disabled people. Successful adjustments are bespoke, flexible, on-going, agreed collaboratively between employer and employee, and implemented as part of a package of support for the employee (Nevala et al., 2015).

UK survey evidence shows that the vast majority of employees with disabilities or health conditions who had received accommodations report these had been helpful (DWP, 2014; DWP, 2015). Yet, employees report that just over half (52%) of adjustments actually helped them stay in work longer (DWP, 2015). While the Equality Act 2010 introduced an employer duty to make reasonable adjustments for disabled staff, access to and the implementation of work adjustments for employees appears to be inconsistent, especially for people with mental health conditions. Survey evidence indicates many disabled employees don't receive adjustments that could help them successfully stay in work. In a survey, 42% of employees with health conditions reported receiving any workplace accommodations (DWP, 2014). Likewise, 43% of Employment and Support Allowance claimants previously in work reported not having received any accommodations before leaving work (DWP, 2015).

Future evidence priorities

The evidence base in this area could be strengthened by research which:

- Provides more in-depth descriptions of experiences of adjustments and accommodations among employees with disabilities and health conditions.
- Undertakes more rigorous evaluations of the effectiveness and cost effectiveness of workplace accommodation practices, and interventions to help overcome barriers to implementation.

	Examines the effectiveness of different work adjustments, accommodations and support for people with mental health conditions specifically.
	Relevance to policy This area of evidence is relevant for informing the development of current and future policy aiming to improve the recruitment and retention of people with health conditions in work through measures designed to improve employer practice on workplace accommodations. In particular, it would inform a stream of government action which aims to equip employers with the knowledge, skills, and support to intervene when health or disability issue arise in their workplace. occupational health reform.
Baert, S. et al <i>The COVID-19 Crisis and Telework: A</i> Research Survey on Experiences, Expectations and Hopes IZA (Discussion Paper 13229, 2020) https://covid-19.iza.org/wp- content/uploads/2020/05/dp13229.pdf	Flemish workers foresee the COVID-19 crisis as making teleworking (85%) and digital conferencing (81%) much more common in the future, at least in Belgium. However, those with resident children are less satisfied with the increased teleworking. Following the same trend, more than one in five experiencing increased time spent teleworking (during the COVID-19 crisis) report more conflicts with their housemates.
Benzeval, M. et al Understanding Society Working Paper Series 2020-11 Briefing note COVID-19 survey: health and caring https://www.iser.essex.ac.uk/research/publications/working-papers/understanding-society/2020-11	 The health and caring section of the Wave 1 COVID-19 survey covered five broad topics: Experience of COVID-19 symptoms, testing and hospitalisation. Use of health services for long-term health conditions. Mental health and loneliness, using the same scales as the <i>Understanding Society</i> main survey so change can be investigated. Health behaviours, also using scales carried on the main survey. Reciprocity – an adapted version of the 'caring' module from the family networks section in main survey asking about receipt and giving of care and how this has changed during pandemic.
	In this briefing we take a first look at the health data, where appropriate comparing with data from Wave 9 (2017/18) of the <i>Understanding Society</i> main survey.
Chung, H., & Van der Lippe, T (eds) (2018/forthcoming). Flexible working work life balance and gender equality.	Flexible working/home working can potentially traditionalise gender roles, penalizing women further – increasing the gender pay gap. To reduce this,

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https://link.springer.com/article/10.1007%2Fs11205-018- 2025-x	ensure fathers are also considered in their roles as a carer (including increasing ear-marked well paid paternity leave to change gender norms) – and ensure women who work flexibly do not get penalized when doing so. Change in organizational culture is necessary.
Chung, H. (2018/forthcoming). Gender, flexibility stigma,	Flexibility stigma prevalent in the UK stigmatizing mothers most. Highlights
and the perceived negative consequences of flexible working in the UK. Social Indicators Research	the need to ensure protection against such discrimination of flexible workers – possibly through labour law + campaigns on the productivity outcomes of
Working in the Or. Social Indicators Nesearch	flexible working.
Chung, H, Seo, H, Forbes, S and Birkett, H. (2020) Working	Survey of workers during mid lockdown (mid-May – mid June) show how
from home during the COVID-19 lockdown: Changing	working from home has expanded – workers were able to work
preferences and the future of work. Canterbury, UK:	effectively/prioritizing work during this period. Yet more support especially
University of Kent.	for equipment/tools are needed and workers miss social interaction with
	colleagues. Working from home during this time has also been experienced
	unequally – with women carrying out the triple tasks of work/care/schooling
	more than fathers – which emphases need of ensuring managers support
Contard variation and inspeculities	fathers in their caring roles to ensure gender equality.
Sectoral variation and inequalities Grey resources – Timewise have produced several recent	Important to distinguish between employer- and employee-driven flexible work. Job quality an issue. Some sectoral work is relatively more
reports focusing on sectors where shift-based work is	constrained in time and place. Obstacles around job design and adoption of
common, and where remote working provides a challenge:	flexible work in shift working and low-paid jobs, albeit not insurmountable
Social Care	ones. Lack of advice for employers: large policy-practice gap (more broadly
Retail	verified by Budjanovcannin, 2018); suggestions that managers gatekeep
Teaching	access to flexible work (Atkinson, 2011; Michielsens et al., 2014), creating a
Nursing	marginalisation of flexible work for some employees.
More academic studies which complement this work	Significant in the context that studies have repeatedly identified lower-skilled
include Charlesworth et al. (2015) on social care; Smith and	workers as having reduced access to flexible working (Chung, 2017; Warren
Elliott (2012) on retail.	and Lyonette, 2018).
	Lott and Chung (2016) (using German data) found that flexible work had
	positive income gains only for men (partly due to men and women's different
	motivations in accessing flexible working), contributing to organisational
	gender inequalities.
	1 3011401 11104441111101

Age and flexible working	Ageing is a relatively new human resource management issue for
Grey resources:	organisations, and flexible working a key component of this.
Chartered Institute of Personnel and Development (2015)	
Managing an Age-Diverse Workforce: Employer and	Flexible working regarded as a key tool by employers to keeping older
Employee Views, https://www.cipd.co.uk/Images/managing-	workers in post for longer. But lack of training of employers around
an-age-diverse-workforce_2014_tcm18-10838.PDF	managing age-diverse teams.
Smeaton, D. and Parry, J. (2018) Becoming an Age-	Flexible work is one of the 3 key components of the report, which is written
Friendly Employer: Evidence Report, Centre for Ageing	from the perspective of what employers can do, and what works.
Better. https://www.ageing-	The emphasis is upon good quality flexible work that enables older workers
better.org.uk/sites/default/files/2018-09/Being-age-friendly-	to continue working for longer around diverse circumstances. Highlighted a
employer-evidence-report.pdf	large shortfall of flexible working opportunities in relation to demand;
Separate employer toolkit for employers developed, based	significant sectoral variations; and a lack of training for managers around
on the same evidence.	flexible job design.
	, ,
	Areas for development in employer practice highlighted as: flexible hiring,
	building the diversity of flexible working options available to employees, and
	supporting managers' capacities.
	Prior to COVID, age patterning among working from home – raised among
	the over 60s, and particularly amongst men (AgeUK, 2012).
Grey resources – Organisation for Economic Co-operation	Self-employment is a significant but overlooked component of UK
and Development (OECD) policy brief on home-based	homeworking. Gender and socio-economic issues. Home-based businesses
entrepreneurship:	experience more challenges accessing business support infrastructure.
Reuschhke, M. & Domecka, M. (2018) <i>Policy Brief on</i>	Need to strengthen evidence base.
Home-Based Businesses, OECD SME and	The same of the sa
Entrepreneurship Papers No.11.	
Academic paper, using Understanding Society dataset:	Subjective well-being of homeworkers is differentiated around employment
Reuschke, D. (2019) 'The subjective well-being of	circumstances. Wellbeing of home-based entrepreneurs can be complicated
homeworkers across life domains', <i>Environment and</i>	by work-life balance challenges. Chung (2017) uses Workplace Employment
Planning A: Economy and Space, 51 (6):1326-1349	Relations Study data to link flexible working to increased work-life tension.
Managerial issues around flexible working	UK's civil service has committed to becoming its most inclusive employer by
Grey literature – flexible working in the civil service: survey	2020, but the report identifies key issues which are limiting progress around
of 1,600 UK civil servants:	flexible work: part-time working flagged as impeding career progress and
or 1,000 or	creating work-life balance conflict (see Tomlinson(2007) on the normative
	1 ordaning work in a balance commot (see Forminson(2007) on the normative

Jones, L. and Jones, V. (2019) Flexible working: myth or reality? Research and recommendations from the FDA and the Global Institute for Women's Leadership at Kings College London.	assumption of full-time workers in career structures); flexible working become more difficult for those working long hours. Need for: improved training for line managers to support flexible working; more engagement with team approaches to flexible working. Findings tie in with broader findings that managers regard flexible workers are more challenging to manage (Conley and Jenkins, 2011), and that flexible workers are regarded as less committed and difficult to place in 'long hours culture' organisations (Corby and Stanworth, 2009; Tomlinson et al, 2013).
Grey literature: Parry, J. (2017) Employers, the right to request flexible working and older workers, Research Briefing, University of Southampton https://www.southampton.ac.uk/publicpolicy/support-for-policymakers/policy-projects/parry-flexible-working.page	Research conducted in the early years of the universalisation of the right to request flexible work legislation, looking specifically at its effect upon employers' experiences of managing older workers focusing on local government and third sector. Key challenges identified: uneven work practices around flexible working. pockets of managerial resistance. employer support needs around job redesign. and that a business rationale in decision making can disadvantage the very workers who stand to gain most from flexible working. In the contest of the broader national policy agendas around extending working lives and promoting active ageing, which flexible work complements, the research raises a number of unresolved policy issues.

ARI 5: What new and better approaches are there for delivering joined-up, tailored and personalised health and work
support? How can we effectively engage employers, health professionals and other stakeholders to improve work and
health outcomes?

Resource	Key Messages
Bond, G.R., Drake, R.E. & Becker, D.R., 2008. An update on	Existing evidence
randomized controlled trials of evidence-based supported employment. Psychiatric rehabilitation journal, 31(4), p280. Hillage J., Rick J., Pilgrim H., Jagger N., Carroll C. & Booth A. (2008) Review of the Effectiveness and Cost Effectiveness of	One stream of studies is concerned with employment support or vocational support to help people with health conditions or disabilities move into employment. Individual Placement and Support (IPS) is a key example of vocational support for people with health conditions or disabilities. Originally

Interventions, Strategies, Programmes and Policies to Reduce the Number of Employees who Move from Short-term to Long-term Sickness Absence and to Help Employees on Long-term Sickness Absence Return to Work. Brighton: Institute of Employment Studies, University of Sussex; 2008. Bond, G. R., Drake, R. E. & Becker, D. R. 2012. Generalizability of the Individual Placement and Support (IPS) model of supported employment outside the US. World Psychiatry, 11, p32.

Coleman, N., Sykes, W. & Groom, C. (2013). What works for whom in helping disabled people into work? Published report by DWP. Working paper: 120.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/266512/wp120.pdf (Accessed July 2020).

Van Stolk, C., Hofman, J., Hafner, M. & Janta, B. (2014) Psychological wellbeing and work: improving service provision and outcomes. Published report for DWP. https://www.gov.uk/government/publications/psychological-wellbeing-and-work-improving-service-provision-and-outcomes (Accessed July 2020).

Kenning, C., Lovell, K., Hann, M., Agius, R., Bee P.E., Chew-Graham C, et al. (2018). Collaborative case management to aid return to work after long-term sickness absence: a pilot randomised controlled trial. Public Health Research. Vol. 6 (2).

designed for people with severe mental illness, IPS is implemented to a fidelity model, and has been shown to have a positive effects on employment and health related outcomes, such as reduced incidences of hospitalisation (Bond, Drake & Becker, 2008; Bond, Drake & Becker, 2012). There is a good case for this intervention on the basis of therapeutic outcomes for people with severe mental health illness, but the intervention has not been tested widely for other cohorts. In addition, employment outcomes reported in existing studies are generally less stringent than those used for evaluations of UK government programmes, which limits the capacity to make a value for money case comparable to other employment programmes in the UK. New trials in England (for example in Sheffield City Region and the West Midlands Combined Authority) are underway to provide evidence on the effectiveness of IPS for wider cohorts in the UK.

Another stream of studies is concerned with interventions which help to support individuals on long-term sickness absence to return to work (Hillage et al., 2008). For example, Kenning et al. (2018) undertook a pilot study of a multi-component intervention for people on sickness absence that aimed to address multiple needs. It included a workplace component and was supported by medical intervention where needed. Features included patient-centred assessments and care plans, interaction between employee, case manager, employer and GP/occupational physician and signposting to other services and support. However, the pilot study struggled to engage employers in intervention and recruit enough participants. This is a general challenge for interventions which require some collaboration with employers.

Future evidence priorities

The evidence base in this area could be strengthened by research which focuses on:

 Novel approaches to vocational support for people with health conditions or disabilities, particularly approaches that involve a range of parties alongside individuals, such as employers, healthcare professionals and employment support providers.

- theoretically informed work to specify the components of interventions and study how they might be varied or combined.
- Whether and how interventions support health equity and equality across groups, including take up, support received, experience of interventions and outcomes achieved.
- Methods to improve the capability of actors in different roles that play a
 part in delivering vocational support in particularly in NHS, occupational
 health sector and welfare system.

Relevance to policy

This area of evidence is relevant for informing the development of current and future employment support programmes, at a national, regional and local level. It is also relevant to current work informing future occupational health reform.

ARI 6: What are the current and future trends in disabilities and health conditions that working-age people face that require targeted policy measures to improve employment, health and wellbeing outcomes?

Resource

Waddell G & Aylward M. (2010). *Models of sickness and disability applied to common health problems*. London: Royal Society of Medicine Press.

Spiers, N., Bebbington, P., McManus, S., Brugha, T.S., Jenkins, R. & Meltzer, H. (2011) 'Age and birth cohort differences in the prevalence of common mental health disorder in England: National Psychiatric Morbidity Surveys 1993 – 2007' British Journal of Psychiatry 198; p479. Fylan B, Fylan G F and Caveney L. (2012). GPs' perceptions of potential services to help employees on sick leave return to work. DWP Research Report No 820.

Key Messages

Existing evidence

The most common types of health conditions affecting work participation include mental health conditions like anxiety and depressive disorders, musculoskeletal conditions, and cardio-respiratory conditions (Waddell and Aylward, 2010), also common reasons for years lived with disability in England (Newton et al., 2015). The prevalence of common mental health conditions in adults has been rising slightly in recent decades. According to the Adult Psychiatric Morbidity Survey series, the proportion of adults in England with a common mental disorder rose from 15.5% in 1993 to 18.9% in 2014 (NHS Digital, 2014). Furthermore, the proportion of incapacity benefits claimants with a mental health problem rose over considerably over the 1990s and by the end of the decade, mental and behavioural disorders surpassed musculoskeletal disorders as the most common primary health

McManus S., Mowlam, A., Dorsett, R., Stansfeld, S., Clark, C., Victoria, B., Wollny, I., Rahim, N., Morrell, G., Graham, J., Whalley, R., Lee, L. & Meltzer, H. (2012). *Mental health in context: the national study of work-search and wellbeing.* DWP Research Report 810.

NHS Digital (2014). Adult Psychiatric Morbidity Survey: Survey of Mental Health and Wellbeing, England, 2014. https://digital.nhs.uk/data-and-information/publications/statistical/adult-psychiatric-morbidity-survey/adult-psychiatric-morbidity-survey-survey-of-mental-health-and-wellbeing-england-2014 (Accessed July 2020).

Newton, J., Briggs, A.D.M., Murray, C.J.L., Dicker, D., Foreman, K.J., Wang, H. et al. (2015). Changes in health in England, with analysis by English regions and areas of deprivation, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013, The Lancet, 386: p2257.

conditions among incapacity benefits claimants. There is indicative evidence that mental health problems are perceived to be more challenging to manage than other conditions even among GPs (Fylan et al., 2012). In addition, by their very nature, mental health problems mean that people will tend to have a more negative world view which erodes beliefs and can affect work outcomes (McManus et al., 2012).

Future evidence priorities

This would explore the social epidemiology of common health conditions among working age people, particularly with reference to work, for example:

- Investigating obesity as a cause and sequelae of work disability.
- The direct and indirect effects of the COVID-19 pandemic on rates of mental disorders, cardio-respiratory conditions and musculoskeletal conditions among working age people.
- The relationship between morbidity and functional capability (for work and other activities) across the lifecourse, and any variation by cohort; The role of healthcare services in influencing trends in common health problems as they affect employment outcome, for example, considering access, experience and outcomes among working age patients.

Relevance to policy

This stream of evidence informs a general case for government action. It may inform choices about prioritisation and support with considering equality and health equity implications of different measures or strategies to improve health or work outcomes.

Disability Focus

Bandosz, P. et al OP45 (2019) 'The Potential Impact of Diabetes Prevention on the UK Burden of Dementia and Disability'. Journal of Epidemiology and Community Health, 73(1). (Oral Presentation reported in journal) https://jech.bmj.com/content/73/Suppl_1/A22.1.abstract

The authors used a Markov model to predict trends in Type 2 diabetes, cardiovascular disease and dementia to 2060 drawing on the English Longitudinal Study of Ageing data. The modelling showed a predicted 26% increase in type 2 diabetes by 2060. If this occurs, then this will lead to substantial increases in dementia and disability, and the authors recommend the enhancement of prevention policies.

This qualitative study of disabled working people in England highlights the link between education and impairment; those with higher levels of education are more able to avoid incapacity through workplace flexibility, adjustments or

Disability Focus

Baumberg, B. (2015) 'From impairment to incapacity – educational inequalities in disabled people's ability to work'. Social Policy & Administration, 49 (2): 182-198

changing jobs. Education is linked with job flexibility; those with lower levels of education find it harder to get suitable work and therefore became incapacitated. The author argues that some bodies such as the Organisation for Economic Co-operation and Development claim that there has been a policy failure which incentivises people to claim incapacity benefits reflective of an economic model of rational decision-making. Equally, the biopsychosocial model argues that people have been led to believe they are incapable of work and hence become dependent on benefits. Conversely, it has also been noted that weak labour demand constrains choice. In this study, the author focuses on the role of education. The interviews showed that some people with impairments were able to find non-disabling work environments through job flexibility, adjustments or moving to a more suitable job. However, there was a sizeable grey area where people were struggling with impairments that affected their work. Employers were generally sympathetic for temporary sickness but less so for chronic disability leaving many in the study 'struggling on' in a partly disabling environment. The study concludes that education plays a key role in creating choices and options.

Disability Focus

Beatty, J. et al. (2019) 'On the treatment of persons with disabilities in organizations: a review and research agenda'. Human Resource Management, 58 (20): 119-137.

This review of 88 empirical articles finds that the extant research base has a number of limitations, including missing differentiation between disability populations, over-reliance on available datasets, predominance of single-source, cross-sectional data and neglect of individual differences and identities.

Disability Focus

DWP (2020) The Employment of Disabled People. 24th March 2020. Annual overview.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/875199/employment-of-disabled-people-2019.pdf

In the UK, the number of disabled people in work is increasing and the gap between disabled and non-disabled is closing. 4.4m disabled people are in employment out of a total of 8.1m disabled people of working age, representing 54.1% of disabled people. Disabled people move out of work at twice the rate of non-disabled and workless disabled people move into work at around one-third of the rate of their non-disabled peers. 18% of working age people in the UK report a disability. The gap between employment rates increases with age. The most common main health conditions reported by disabled people of working age were (in descending order): depression or anxiety; musculoskeletal conditions; other health problems or disabilities; mental illness; chest or breathing problems, progressive illness; digestive problems; heart problems, diabetes; learning difficulties. Employment rates

Disability Focus Guzman-Castillo, M. et al (2017) 'Forecasted trends in disability and life expectancy in England and Wales up to 2025: A modelling study', The Lancet, 2 (7): 307-313. (Journal article) https://www.sciencedirect.com/science/article/pii/S2468266 717300919	for those with musculoskeletal health conditions were higher than for those with a mental health condition. Over half of disabled people in employment have more than one health condition and employment rates declined with number of conditions. Regionally, the highest employment rates for those with disabilities are: South East; South West; East of England. Disabled people are more likely to work in human health and social work activities, wholesale and retail trade or education: 41.2% of disabled workers. The paper presents the first longitudinal empirical modelling of disability trends in the UK and examines a prediction of population trends in relation to life expectancy and disability focusing on individuals aged 35-100. The study shows increasing numbers of people aged 65+ (from 10.4m to 12.4m) with an increase in the number living with disability by 25%. The study focuses in particular on cardio-vascular disease, dementia and functional impairment. Although primarily relevant in the context of the health of older adults, there are implications of these predictions for those in employment, giving the rising retirement age. Cardio-vascular disease and dementia share risk factors (poor diet, smoking, high alcohol consumption, hypertension, diabetes and physical inactivity) and the authors recommend investment in prevention
Disability Focus Hatton, C. (2018) 'Paid employment amongst adults with learning disabilities receiving social care in England: trend over time and geographical variation'. Tizard Learning Disability Review, 3 April, 23(2). https://www.emerald.com/insight/content/doi/10.1108/TLDR-01-2018-0003/full/html	policies which would also be relevant for employers. The article draws on data from NHS Digital adult social care statistics to explore paid/self-employment for 18-64 years adults with learning disabilities known to social care. In 2016-17 5.7% were in employment/self-employed with most working fewer than 16 hours per week. Rates of employment do not appear to be growing over time.
Disability Focus Jones, M., Davies, R. and Drinkwater, S. (2018) 'The dynamics of disability and work in Britain'. The Manchester School, 86 (3): 279-307.	The authors study the link between work-limited disability and labour market outcomes using the extended panel element of the Local Labour Force Survey 2004-10. They find that disability onset has a significant negative impact on employment, and this widens cumulatively post-onset, but that the effect of disability exit (i.e. the end of the disability) is modest. The impact of disability is greater for men and older workers, and the impact is also greater for those with mental as opposed to physical health problems. Heterogeneity of disability was also important. The authors conclude that government policy

	should focus on reducing the risk of disability onset and/or supporting
	individuals to retain work at this time.
Disability Focus ONS (2020) https://www.ons.gov.uk/peoplepopulationandcommunity/hea Ithandsocialcare/disability/articles/improvingdisabilitydataint heuk/2019	Disability is defined as when someone 'has a self-reported long-standing illness, condition or impairment that causes difficulty with day-to-day activities'. Between 2013-19 the disability employment gap has reduced, 53.2% of disabled people are in employment. Those with severe or specific learning difficulties are the least likely to have a degree (7%). Data on the educational experiences and outcomes for disabled children across the UK are lacking. The employment gap between disabled and non-disabled is greatest for those with learning difficulties and mental illness. More disabled people work part-time; women are most likely to experience a pay gap. The median pay for disabled people is consistently lower than for non-disabled. Older disabled adults experience an increasing employment gap. There is a need for better data, and a harmonized measure of disability. ONS are currently undertaking research to address some evidence gaps notably
Disability Focus	around the outcomes for disabled people. 3.7m disabled people are in work (19% of working age adults are disabled);
Scope (undated)	they are more than twice as likely as non-disabled to be unemployed.
https://www.scope.org.uk/media/disability-facts-figures/	liney are more than twice as likely as non-disabled to be unemployed.
Disability Focus	The study found that the dischility ampleyment gap is around 200/ and the
Trades Union Congress (2019) Disability Employment and	The study found that the disability employment gap is around 30% and the disability pay gap is around 15.5%. The pay gap is increasing and disabled
Pay Gaps 2019. Report.	women are most affected. Only around 52% of disabled people of working
https://www.tuc.org.uk/sites/default/files/2019-	age are in employment. ONS data show that those groups with lowest
11/Disability_gaps_2019.pdf	employment rates are: 'learning difficulties' (15% in employment); 'speech impediments' (20% in employment); 'epilepsy' (34% in employment); 'mental illness, phobias or panics' (34% in employment); 'impairments linked to arms or hands' (39% in employment).
Stress and Mental Health Focus	From a survey of 2000 working adults, 2/3 of employees have felt stressed
The Advisory, Conciliation and Arbitration Service (ACAS)	and/or anxious about work in the past 12 months, including 76% of under-
(2019) 'Stress and Anxiety at Work: Personal or Cultural?' 1	35s. Only 8% say their organization is 'very good' at preventing employee
May 2019. ACAS policy document based on health at work	anxiety/stress. Most common causes of stress are workload (60%),
survey by YouGov. https://www.acas.org.uk/stress-and-	management (42%) and balancing home/work life (35%). 33% say a reduced
anxiety-at-work-personal-or-cultural	workload, 26% say better flexible working opportunities and 23% more role
	clarity would help with stress/anxiety.

Stress and Mental Health Focus

Bhui, K. et al. (2016) 'Perceptions of work stress causes and effective interventions in employees working in public, private and non-governmental organisations: a qualitative study'. *British Journal of Psychology Bulletin*, 40(6): 318-325.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5353523/

A qualitative study of work stress involving 51 interviews in a range of organisations. The study highlights evidence that 440,000 people in the UK have work-related stress, depression or anxiety, with 9.9 million working days lost in 2014-15 and costs to the economy of £14.3 billion. The authors point to ongoing evidence gaps, especially concerning employer interventions. The study found adverse working conditions and management practices were common causes of work stress, e.g. unrealistic demands, lack of support, unfair treatment, low decision latitude, lack of appreciation, effort-reward imbalance, conflicting role, lack of transparency and poor communications. Interventions perceived as effective improved management styles, physical exercise, taking breaks, ensuring adequate time for planning work tasks. Personal interventions outside work were important to prevent and remedy stress.

Stress and Mental Health Focus

Chartered Institute of Personnel and Development (CIPD) 2020b Health and well-being at work. Annual Survey. 31st March.

https://www.cipd.co.uk/knowledge/culture/well-being/health-well-being-work

The report presents the findings of the 20th CIPD survey of health and wellbeing, involving 1000 people professionals. The study found the lowest ever average absence rate of 5.8 days, but also uncovered rising levels of stress, with one third of respondents stating that stress-related absence had increased in the past year, mainly due to heavy workloads, and an increase in presenteeism and 'leavism'. Heavy workloads coupled with management style were the top two causes of stress. The report found 37% of respondents reported an increase in stress-related absence. The authors recommend organisations carry out stress risk assessments along with focus groups to build a holistic picture and target action where it is most needed. Senior teams need to make a visible commitment to health and welling (currently, 61% believe senior leaders have this on their agenda). Manager training is key, along with having a clear wellbeing strategy (44% of organisations were found to have a strategy at present) and the use of tools such as AEPs. 45% of respondents believe their organization does not make enough use of the specialist knowledge of their occupational health provision to promote good work. 33% say their organisation is not taking steps to address stress-related absence.

Stress and Mental Health Focus

Johnson, S. (2017) 'Emotion, stress and burnout – don't write off older workers'. Work and Equalities Institute

The briefing draws on peer-reviewed research and argues that the working population is getting older, but that older workers are subject to age discrimination. However, there is in fact very little evidence of any age-related

Research Briefing, Manchester University. http://documents.manchester.ac.uk/display.aspx?DocID=45 531	deficits and, in the service sector, we improve with age. The paper draws in particular on a study of 444 workers in Germany's service sector and found that older workers are better at using emotion regulation strategies and are more engaged and less prone to burnout than younger colleagues. Their life experiences and ability to anticipate situations enable them to respond more authentically and with more empathy, reducing the need to fake emotion in challenging situations. This paper challenges the idea that older workers are more prone to stress than younger workers.
Stress and Mental Health Focus New Economics Foundation (2014) 'Wellbeing at work'. Report based on rapid review of the evidence. 26 March. New Economics Foundation. https://neweconomics.org/2014/03/wellbeing-at-work	The report draws on a review conducted by Peter Warr and further research conducted by the authors. The report highlights inconsistencies in the measurement of wellbeing among economists and psychologists and differentiates between hedonic, eudaimonic and evaluative wellbeing. Repeated research shows that wellbeing is associated with performance and productivity. Low levels of wellbeing are linked with heart attacks, strokes, osteoarthritis and diabetes. Regular physical activity reduces the risk of anxiety and depression and raises mood, due to the increase in self-efficacy and distraction from daily life. Healthy eating, vitality and sleep are also associated with wellbeing. The authors recommend employers should support the achievement of good health, not simply protect employees from risks. The evidence on the link between hours worked and wellbeing is mixed but there is some evidence very long working hours are detrimental. Job design is relevant for wellbeing (see ARI 8). Management and organizational practices that impact on wellbeing include feedback, fair pay, job security, positive manager behaviour, the physical conditions of work. Functioning at work is also important including a sense of control, promotion and development opportunities, work relationships.
Evaluation of government programmes focus Britton, J. and French, E. (2020) 'Health and employment amongst older workers'. Fiscal Studies. https://doi.org/10.1111/1475-5890.12213	The paper reviews existing evidence from the UK and concludes that 5-10% of employment decline between ages 50-70 is due to declining health in England with the largest effects among low-educated men. The share of people who self-report work limitations rises from 19% to 33% between 50-70. Most of this is due to declining preferences for work and lower productivity when in bad health but some is due to government-provided incentives to not work when in bad health such as disability benefits (the authors estimate one-fifth of the employment gap between healthy and unhealthy people in

Evaluation of government programmes focus Equality and Human Rights Commission (2017) 'Being Disabled in Britain: A Journey less Equal'. 3 April. Report. https://www.equalityhumanrights.com/en/publication- download/being-disabled-britain-journey-less-equal	England can be explained by the presence of disability benefits). Overall, those aged 50-60 who report health limits their ability to work have employment rates 44% lower than those who do not, thus health is a key driver of employment. This arises within a context where government is raising retirement age and tightening eligibility thresholds for disability benefits. The report highlights the difficulty in reaching consensus on an accurate measure of health and concludes that using a single objective measure understates the full impact of health on employment. Existing estimates vary by as much as a factor of 10. The authors highlight the point that health alone does not influence employment outcomes but also confounding factors such as childhood health and education. Disabled people in Britain are less likely to be in employment than others. There are questions about the effectiveness of the Work Programme; non-disabled people are more likely (35%) to get a job than disabled people (18%). Very low numbers of disabled people are taking up apprenticeships; disabled women and young people are paid significantly less than others. Fewer than half of disabled adults were in employment in Britain in 2015-16 (47.6%) compared with almost 80% of non-disabled adults and the gap has widened since 2010-11. More disabled people are living in poverty than others. Disadvantages in work are mirrored in other areas of life as well such as health and care, participation and identity, justice and detention, standard of living and education.
Evaluation of government programmes focus Kessler, I. (2018) Rapid Review of Supported Internships in the NHS. July 2018. (unpublished)	The review highlights the success of the supported internships scheme in helping young people with disabilities into employment. However, ongoing support post-programme emerged as both important and challenging to achieve; programme graduates found it difficult to engage with typical NHS recruitment and selection processes; job scarcity meant some could not find employment.
Evaluation of government programmes focus Leonard Cheshire Foundation (2020) 'Reimagining the workplace: disability and inclusive employment'. Report. https://www.leonardcheshire.org/sites/default/files/2020- 02/reimagining-the-workplace-disability-inclusive- employment.pdf	7.5m people of working age in the UK are disabled or have a long-term health condition; 51.3% are in employment, this has not changed over the past decade. The report is critical of the UK government's aim to address the disability employment gap by increasing the number employed by a mere 100,000 per annum. The report highlights problems with the Work Capability Assessments process and inconsistent application of benefit sanctions. The

report also highlights the lower earnings of disabled people which exacerbates their poverty levels: 75% of households using foodbanks contain someone with a health condition or disability. The Foundation's research found 24% of employers said they were less likely to employ someone with a disability and 66% stated that the costs of workplace adjustments were a barrier. 40% of the working age population is predicted to have a long-term health condition by 2030; flexible working emerges from their research as vital to retaining disabled people. Leonard Cheshire has established the Change 100 programme with top employers to create opportunities for disabled students and graduates; their other schemes for disabled people have also helped young people into work. 73% of disabled adults in the UK said they have stopped working due to their health condition or disability. **Evaluation of government programmes focus** The authors analyse qualitative data from hard-to-access individuals with Scholz, F. and Ingold, J. (2020) 'Activating the 'ideal mental health conditions accessing the Work Programme (WP). The article jobseeker': Experiences of individuals with mental health shows ableist norms of the ideal jobseeker are embedded in the programme's conditions on the UK Work Programme'. Human Relations, design, prioritizing certain individuals and behaviours over others. There has online, doi.org/10.1177/0018726720934848 been a steady increase of those with mental health conditions such as stress, depression and anxiety; in 2017-18 595,000 people of working age in the UK had experienced poor mental health, with 15.4 million days lost. Every year, 300,000 people with long-term mental health conditions lose their job in the UK according to Labour Force Survey data. The authors conclude that instead of altering patterns of inequality, the WP reproduced disability inequality and exacerbated workplace exclusion. Workplace adjustment focus The report reviewed 21 peer-reviewed studies and 8 practitioner reports. The The Advisory, Conciliation and Arbitration Service (ACAS) focus was on workplace adjustments. 1:6 employees in the UK report mental (2020) 'Work Adjustments for Mental Health: A Review of ill-health such as anxiety or depression each week. Mental ill-health is a the Evidence and Guidance'. 12 June 2020. Independent growing concern for employers. The report found that the most common rapid review commissioned by ACAS. adjustments were flexible scheduling, reduced hours, modified training and https://www.acas.org.uk/work-adjustments-for-mentalsupervision, and modified job duties/descriptions. However, employees health-a-review-of-the-evidence-and-guidance-html struggle to access work adjustments and managers are ill-equipped to support employees to access them. 19 different pieces of guidance on work adjustments in the UK were found but there was little consistency in terms used or clarity in the pathways to access work adjustments. Guidance was limited by the absence of robust evidence to guide practice. However,

Workplace adjustment focus

Fenton, S.J. et al (2014) 'Workplace wellbeing programmes and their impact on employees and their employing organisations: a scoping review of the evidence base'. Health Exchange & University of Birmingham, 27th November 2014. Scoping Literature Review Report. https://www.birmingham.ac.uk/Documents/research/ias/Well being-at-work-review-Jan-31.pdf

adjustments are seen to be effective by employees and employers although evidence for effectiveness was less clear with no controlled studies examining the use of specific work adjustments.

The report focuses on the evidence base concerning the effects of workplace health and wellbeing programmes on employees and organisations in relation to mental health and stress; nutrition, physical activity and smoking; musculoskeletal disorders and H&S. The report highlights the link between personal health practices and resources, the organization of work, employee health and productivity. The World Health Organisation has proposed three categories of health intervention: Primary, aimed at generally healthy populations and focusing on prevention e.g. encouraging exercise and fitness. Secondary, aimed at individuals at high risk due to lifestyle practices and focusing on addressing the severity of the illness e.g. screening, weight loss classes. Tertiary, aimed at the disease management of individuals with existing ailments focusing on return to work interventions and targeted services. Most workplace interventions focus on primary and secondary. The authors reviewed literature published between 2000-2014 and found 105 relevant studies focusing on workplace interventions. There are a large number of relevant findings. It is especially worth noting the problematic relationship between workplace wellbeing and stress. Mental health: Studies showed evidence that interventions in mental health aimed at health promotion appear more effective than those focusing directly on symptoms. Retail and construction sectors were identified as particularly susceptible to stress and workplace wellbeing issues and there are particular challenges within the construction sector that make intervention difficult. They conclude that a holistic approach is needed in developing workplace interventions around mental health and wellbeing and that more evaluation of workplace interventions is needed.

Health promotion: the authors conclude the evidence around the effectiveness and cost-effectiveness of interventions to improve health is inconclusive since interventions are usually multi-component. There is an over-reliance on self-report data. Physical health and safety: the authors found a great deal of diversity in relation to types of intervention and conclude

Carers focus Austin, A. and Heyes, J. (2020) Supporting working carers: how employers and employees can benefit. Chartered Institute of Personnel and Development (CIPD)/Sheffield University Report. June 2020. http://circle.group.shef.ac.uk/sustainable-care-publications/	that interventions need to be tailored to the work environment and risks faced by employees. The benefits of interventions outweigh the costs. The authors conclude that wellbeing should be considered holistically to allow for interconnections between work-related and non-work-related factors. Multi-component interventions may be needed but there is insufficient evidence about how these might work. More research is needed in the UK specifically as intervention effectiveness is likely to vary across settings. One aspect of disability that needs to be considered in the context of work and employment is the rising number of people in work who are also carers. This ESRC-funded study showed that employer support can make a difference in terms of carers' ability to manage their caring responsibilities. Around 3.7million employees in England and Wales are working carers (more women than men), and for 72%, caring work is additional to full-time paid work. 32% of working carers provide 30 or more hours of care a week. 44% say that it is difficult to combine paid work and caring, and the report estimates 1.6 million carers are struggling; many find caring affects their work and 30% had reduced their working hours while 36% had refused a job offer or promotion. 25% of carers are unable to use the support offered by employers because of how their work was organized with many stating no support was available – 40% said their employer was carer-friendly. Working from home and flexitime are especially valuable. Formal recognition of carers is important and supporting carers has benefits for the carers as well as employers. The report recommends that policies should be flexible; carers should be given paid caring leave; supporting the
Impact of COVID 40 focus	mental wellbeing of carers is important along with publicizing available support.
Impact of COVID-19 focus CIPD (2020a) Impact of COVID-19 on Working Lives, 4 June 2020. Report https://www.cipd.co.uk/knowledge/work/trends/goodwork/covid-impact	The CIPD run regular surveys of job quality and working lives. This most recent report shows, among other things, that there has been a steady decline in workplace mental and physical health since 2018 and has continued through the pandemic. 28% say work has a negative impact on their mental health; 31% said it did so on their physical health; 43% said their general mental health has deteriorated since the outbreak, rising to 52% of

those with an existing issue; 35% said their physical health has become worse.

ARI 7: Effects and risks of social distancing on working patterns and practices, and how these will affect different groups and sectors.

Resource

ONS (2020b). Coronavirus and the social impacts on Great Britain: 17 July 2020, Opinions and Lifestyle Survey (COVID-19-19 module).

https://www.ons.gov.uk/peoplepopulationandcommunity/healt handsocialcare/healthandwellbeing/bulletins/coronavirusandt hesocialimpactsongreatbritain/17july2020 (Accessed July 2020)

ONS (2020c). Coronavirus and the economic impacts on the UK: 16 July 2020, Opinions and Lifestyle Survey (COVID-19-19 module).

https://www.ons.gov.uk/peoplepopulationandcommunity/healt handsocialcare/healthandwellbeing/bulletins/coronavirusandt hesocialimpactsongreatbritain/17july2020 (Accessed July 2020)

Key Messages

Existing evidence

Our main evidence sources in this area are emerging evidence from surveys conducted since the start of the COVID-19 pandemic. For example, in the week to 12 July 2020, over half of working adults (54%) reported that COVID-19 was having an impact on their work, 27% reported that they had worked exclusively at home in the last seven days and 60% who had a paid job, were self-employed or undertook casual work in the past seven days, reported that they have had to work in new ways (ONS, 2020b).

ONS surveys also tell us about the proportion and type of businesses that have stopped trading or have continued trading during the pandemic, that have a proportion of their workforce furloughed, and that have implemented safety measures. For example, inin the second half of June, a majority of businesses who have not permanently stopped trading indicated they were implementing, or were intending to implement, various safety measures in the workplace including social distancing (91%), hygiene measures (85%), and personal protective equipment (80%) (ONS, 2020c).

Future evidence priorities

The evidence base in this area could be strengthened by research which explores:

- Longer term trends and impacts of continued social distancing on working patterns and practices for different groups, particularly those with health conditions or disabilities.
- Health impacts of any changes to working patterns and practices.

	 How changing health and work needs correspond with protected characteristics and aspects of socioeconomic disadvantage. Psychological factors that affect health and work outcomes, during and beyond the COVID-19 pandemic - including illness perceptions, health beliefs and work participation across different groups. Experiences of work for different cohorts and how this could affect future health outcomes. Experiences of young people with disabilities and health conditions on transition to the labour market during or in the aftermath of the pandemic.
	Relevance to policy This area of evidence is relevant for informing the development of current and future policy relating to the health and well-being of people in work, interventions delivered through the workplace or aimed at employers, and occupational health reform. It will also help inform our general strategy for improving work and health outcomes, including tailoring and targeting of policies and any additional intervention that may be necessary.
IZA Institute of Labor Economics DP No. 13183, Inequality in the Impact of the Coronavirus Shock: Evidence from Real Time Surveys, Abi Adams-Prassl, Teodora Boneva, Marta Golin, Christopher Rauh, 2020	Key Finding: Within countries the impacts of COVID-19 are highly unequal and exacerbate existing inequalities. Less educated workers and women are more affected by the crisis.
https://www.iza.org/publications/dp/13183/inequality-in-the-impact-of-the-coronavirus-shock-evidence-from-real-time-surveys	Informed: Understanding of general impacts of COVID-19 on work and inequality.

ARI 8: What are the different ways to define and measure labour market progression and sustainable work? How does this vary between groups and at different times in people's lives?	
Resource	Key Messages
Resolution Foundation's The Great Escape (2017) https://www.resolutionfoundation.org/app/uploads/2017/10/Great-Escape-final-report.pdf	Key Finding: A significant amount of those in low paid work were struggling to raise and sustain higher earnings.

	Informed: Policy development around in-work progression.
Kelly and Wishart / Joseph Rowntree Foundation 2018, Attitudes	Key Finding: Those on low incomes are worried about automation and
of people on a low income: work_	desire employers to increase pay, provide training, and provide flexible
https://www.jrf.org.uk/report/attitudes-people-low-income-work	working.
	Informed: Policy development around in-work progression.
Clarke and Bangham 2018 (Resolution Foundation) Counting the	Key Finding: National Living Wage has improved earnings at bottom of
Hours: Two decades of changes in earnings and hours worked	the scale. Earnings in 2017 remained below 2009 levels in real terms.
https://www.resolutionfoundation.org/publications/counting-the-hours-two-decades-of-changes-in-earnings-and-hours-worked/	Gendered differences in pay changes can be seen.
	Informed: Policy development around in-work progression.
Income Dynamics: Income movements and the persistence of low	Key Finding: Explored proportions of working families in low-income,
incomes, DWP 2020 (and previous publications including Low	movements between income groups.
Income Dynamics series)	Informed Delice development are undirected to a series
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/875641/income-dynamics-income-	Informed: Policy development around in-work progression.
movements-and-persistence-of-low-incomes-2010-18.pdf	
Thompson, S. and Hatfield, I, (2015) Employee Progression in	Key Finding: Four measures of progression:
European Labour Markets, Institute for Public Policy Research.	• Earnings progression
https://www.ippr.org/publications/employee-progression-in-	Hours progression.
european-labour-markets	Occupational progression.
	Contractual progression.
	UK performance varies across measures, low for some.
	Informed: Policy development around in-work progression.
Schnabel, C. (2016) Low-wage employment. Are low-paid jobs	Key Finding: Supply-side, sectoral, and policy conditions all affect
stepping stones to higher paid jobs, do they become persistent, or do they lead to recurring unemployment? IZA Institute of Labor	prospect of progression out of low pay.
Economics https://wol.iza.org/uploads/articles/276/pdfs/low-wage-employment.pdf	Informed: Policy development around in-work progression.
McKnight, A., S. Kitty, S. Mohun Himmelweit and M. Palillo (2016). 'Low Pay and In-work Poverty: Preventative Measures and	Key Finding: Typology of in-work progression policy levers.
•	Informed: Policy development around in-work progression.

Preventative Approaches. Evidence Review.' Luxembourg: Centre	
for Analysis of Social Exclusion; London School of Economics	
https://www.lse.ac.uk/business-and-consultancy/consulting/assets/documents/Low-Pay-and-In-Work-Poverty.pdf	Key Finding: Occurrence of low pay in UK 4 percentage points higher than Organisation for Economic Co-operation and Development average.
Organisation for Economic Co-operation and Development (2019) https://stats.oecd.org/Index.aspx?QueryId=64193	Informed: Policy development around in-work progression.
DWP In-work Progression Randomised Controlled Trial https://www.gov.uk/government/publications/universal-credit-in-	Key Finding: Small increases in earnings found for claimants in frequent and moderate support groups compared to minimal support groups.
work-progression-randomised-controlled-trial	Informed: Policy development around in-work progression.
Learning and Work Institute (2019) Evidence review: Supporting progression from low pay	Key Finding: Evidence gaps remain around how best to enable in-work progression. Adviser support appears important, as does skills
https://learningandwork.org.uk/resources/research-and-reports/evidence-review-what-works-to-support-progression-from-	development, local strategy, and sector-specific strategies.
low-pay/	Informed: Policy development around in-work progression.
Card, D. et al (IZA Institute of Labor Economics DP 9236, 2015) What Works? A Meta Analysis of Recent Active Labor Market Program (ALMP) Evaluations http://ftp.iza.org/dp9236.pdf	On average ALMP's have relatively small effects in the short run (less than a year after the end of the program), but larger positive effects in the medium run (1-2 years post program) and longer run (2+ years).
	Time profile of impacts in the post-program period varies with the type of ALMP. Job search assistance and sanction programs that emphasize
	"work first" have relatively large, short term impacts, on average. Training and private sector employment programs have smaller short-
	term impacts but larger effects in the medium and longer runs. Public sector employment subsidies tend to have negligible or even negative impacts at all horizons.
	The average impact of ALMP's vary across groups, with larger effects for females and
	participants drawn from the pool of long term unemployed, and smaller effects for older workers and youths. We also find suggestive evidence that certain types of programs work

	better for specific subgroups of participants. Job search assistance and sanction programs appear to be relatively more successful for disadvantaged participants, whereas training and private sector employment subsidies tend to work better for the long term unemployed.
Ussher, K. (2016) <i>Improving pay, progression and productivity in the retail sector</i> . York: Joseph Rowntree Foundation. Available at: https://www.jrf.org.uk/report/improving-pay-progression-and-	What : research and policy report exploring structure of low paid retail workforce alongside attitudes of workers.
productivity-retail-sector (Accessed: 3 August 2020).	Finds:
productivity rotal gooter (recooded. 6 reguet 2020).	 high level of self-reported 'underemployment' among low-paid retail workers, with more than half agreeing they feel overqualified proposes that retail workers can be divided into two broad groups – those who want more hours to earn more money (around half), and those for whom the overriding priority is to have controlled hours some workers believe that seeking promotion in the sector 'isn't worth it'. Also suggests strong link between motivation and age, with people starting out with ambitions to progress (within the sector) but later downgrading.
Devins, D., Bickerstaffe, T., Mitchell, B. and Halliday, S. (2014) <i>Improving progression in low-paid, low-skilled retail, catering and care jobs</i> . Joseph Rowntree Foundation. Available at: https://www.jrf.org.uk/report/improving-progression-low-paid-low-skilled-retail-catering-and-care-jobs	What: purposive sampling of four employers from the retail, care and catering sectors 'known to support progression of their low-paid employees' to identify relevant policies and practices. Particular focus on Internal Labour Market.
low-skilled-retail-catering-and-care-jobs	Finds:
	To understand firm-level behaviour it is essential to understand the economic context in which the firm operates
	 Progression generally discussed in terms of moving from entry level to management roles
	Importance of clear progression pathways and transparent internal labour markets that are open to all staff, with champions also needed within organisations to establish and sustain progression opportunities for low-paid workers.
Wood, C. and Wybron, I. (2015) Entry to, and progression in, work.	What: a JRF solutions report on policy options to support entry and
Demos. York: Joseph Rowntree Foundation (JRF). Available	progression in work for ethnic minority groups based on evidence from

	their December and Ethnicite and recorded
at: https://www.jrf.org.uk/report/entry-and-progression-	their Poverty and Ethnicity programme (empirical papers not presented
work (Accessed: 3 August 2020).	directly).
	Key points:
	The state of the s
	 Experiences and barriers vary by ethnic group, gender, and region, as well as age, class, and migrant status and whether someone is first, second or third generation
	Poor progression prospects may be due to concentration of some PAME groups in particular accumulations appropriate. Page 2017
	BAME groups in particular occupations – suggesting support to leave current employer and/or change occupation may be key – but
	even in sectors where progression is possible there are barriers
	relating to employer practices (lack of transparency, informal
	approach relying on social networks to allocate opportunities).
Green, A., Sissons, P., Broughton, K. and de Hoyos, M.	What: assesses UK and international evidence on local approaches
(2015) How cities can connect people in poverty with jobs. York: Joseph Rowntree Foundation.	linking people in poverty to jobs.
- Coopin Normal Control of Contro	Finds:
	more evidence on pre-employment and employment entry than on
	staying in work and in-work progression; less evidence at city level than nationally
	at the pre-employment stage holistic support packages
	encompassing advice and guidance, mentoring, and employer- designed training are valuable
	for employment entry workplace-based training and help with
	transport and childcare can help; the quality of initial job entry is
	important for staying in work; there is scope for stimulating
	opportunities for in-work progression with employers in growth
	sectors or with recruitment and retention problems.
Bush, L., Templer, M. and Allen, K. (2019) How can Universal	What: reports on research with working parents on Universal Credit
Credit help parents move out of poverty? York: Joseph Rowntree	(UC) and Work Coaches to explore how UC could be changed to
Foundation.	address poverty among working parents.
	Finds:
	i iliuo.

	 Working parents prioritized changing UC to increase the amount of income they can derive from UC, more effective incentives to increase working hours, reducing the financial and administrative burden of childcare, and giving Work Coaches more time and training to support working parents. Work Coaches did not feel they had the time available to offer necessary support due to large caseloads and the complex needs of some claimants.
Green, A., Sissons, P., Ray, K., Hughes, C. and Ferraria, J.	What: describes a series of employment and skills policy proposals
(2016) Improving progression from low-paid jobs at city-region	developed in consultation with stakeholders in the Leeds City Region
level. Joseph Rowntree Foundation. Available	and with reference to wider evidence on supporting job entry and
at: https://research.birmingham.ac.uk/portal/en/publications/improv	progression.
ing-progression-from-lowpaid-jobs-at-cityregion-level(7864344e-	Finds.
<u>e618-4274-9a3a-e13f59909983).html</u>	Finds:
	 A partnership approach is needed, to focus on skills and earnings progression for low-income individuals while also meeting employers' needs. There is scope to improve the careers advice and guidance available to low-paid workers to support progression – a National Careers Service model is proposed. An in-work progression service with a sectoral-based approach could be developed to work with both employers and low-wage workers.
	 Opportunities for part-time workers could be promoted via business support services.
Paskell, C., Rahim, N., Kazira, A. and Crowther, T. (2015) Evaluating the In-Work Progression Advice Trial. 912. London: DWP. Available at: https://www.gov.uk/government/publications/in-work-progression-advice-trial-evaluation (Accessed: 3 August 2020).	What: report on findings from 35 in-depth interviews with Tax Credit claimants who had received different types of communication about the support provided by the National Careers Service to help them 'get on in work'. The trial was undertaken to test ways in which Tax Credit claimants could be prompted to consider and take steps towards in-work progression.
DWP (2018) Universal Credit: In-Work	What: summarises research on the effectiveness of different types and
Progression Randomised Controlled Trial - Summary research	frequency of contact with Work Coaches provided to current Universal
findings. London: Department for Work and Pensions. Available	Credit claimants in low-paid work or low-income households. Both DWP
at: https://assets.publishing.service.gov.uk/government/uploads/sy	and independent research findings.

<u>stem/uploads/attachment_data/file/739766/summary-universal-credit-in-work-progression-randomised-controlled-trial.pdf</u> (Accessed: 3 August 2020).

NOTE: the report referenced here is a summary of an impact assessment report and evaluation report (by Ipsos Mori, qual and quant research). A further impact assessment was also published.

DWP (2017) Evaluation of GOALS UK's step up and Timewise Foundation's earnings progression and flexible career pathways in retail. Research summary 58. London: Department for Work and Pensions, p. 24.

Finds:

- Some evidence for (modest) increase in weekly earnings at 52 weeks for those in 'moderate and 'frequent' support treatment groups vs minimal support (£4.43-£5.25 higher). Not replicated by independent evaluation of a sample of claimants.
- Regardless of 'treatment' group, the majority (91%) of claimants undertook a progression related action. Frequently this involved looking for a new job and requesting more hours.
- At both waves, participants saw the main barriers to progression as the lack of available full-time jobs, their own health issues and their lack of skills or qualifications
- Higher sanction rate for frequent and moderate support group and main reason for sanctions across trial was for failing to attend a meeting.
- Barriers to progression reported by employers were mainly structural, e.g. limited higher-level roles in large organisations with flat structures and smaller organisations. Also, low staff turnover, limited staffing budgets (restricting pay, training and number of positions) and dependence on external funding.

What: summarises separate evaluations of three small proof of concept studies commissioned in 2014-16:

- 1. Timewise Foundation's Universal Credit (UC) earnings progression aimed to support and increase 102 low-income parents' incomes while maintaining flexible working.
- 2. GOALS UK: Step Up model aimed to motivate and support 80 low-income, part-time workers towards progression in work and greater financial independence.
- 3. The UK Futures Programme, run by Timewise in partnership with a national retailer. Aimed to tackle progression barriers and increase part-time, entry level, female workers' earnings.

Key points:

	 Looked at progression in terms of earnings progression (pay rise, or more hours), or a new job. Potential for job re-design to facilitate progression but Timewise also found client job change support and job brokerage for those most in need to be most effective for achieving progression particularly as many worked for SMEs.
DWP (2017) Employer experiences of recruiting, retaining and	What: 50 employer case studies oversampling those in low paid sectors
retraining older workers: Qualitative research. Available	to explore attitudes and behaviours of employers around recruitment,
at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/584448/employer-experiences-	retention and retraining of older workers.
of-recruiting-retaining-and-retraining-older-workers.pdf (Accessed:	Findings:
3 August 2020).	Existing flexible working policies and procedures are seen as effective to meet the needs of older workers. However, these policies are not always clearly articulated and are predominantly used by new parents.
	Flexible working arrangements are more likely to be made for long- standing employees than for new entrants.
Ray, K., Bertram, C., Davidson, R. and Durante, L. (2010) Can altering the structure of financial support payments aid work retention amongst lone parents? Qualitative evaluation of the In Work Retention Pilot. Research Report by Policy Studies Institute 708. London: Department for Work and Pensions. Available	What: qualitative research on the In Work Retention Pilot (IWRP) for lone parents, introduced in two Jobcentre Plus districts 2008-2010. It was a variation on In Work Credit (IWC), with a different payment structure and additional advisory support.
at: https://www.gov.uk/government/publications/qualitative-	Finds:
evaluation-of-the-in-work-retention-pilot-rr708 (Accessed: 3 August 2020).	 The distinctive payment structure, in itself, was not felt to have any effect on work entry or work retention. It was suggested that this was because the lump sum payments, initiated at 39 weeks, were too distant to have any effect on initial decisions to enter work, and by the nine month stage lone parents were less likely to have financial problems that threatened work retention. Lone parents reported mixed experiences of retention support from Jobcentre Plus once in work, and very little experience of any kind of advancement support.

Hendra, R., Ray, K., Vegeris, S., Hevenstone, D. and Hudson, M. (2011). Employment Retention and Advancement (ERA) Demonstration: Delivery, Take-up, and Outcomes of In-work Training Support for Lone Parents, Department for Work and Pensions Research Report 727, London: Department for Work and Pensions

What: research on ERA which targeted lone parents and the long-term unemployed and offered participants access to a personal adviser, alongside financial incentives to complete training and work full-time.

Finds:

 Increased training for lone parents with lower qualifications but did not lead to increased earnings. This may be because training was insufficiently linked to available and realistic progression routes within local labour markets.

Hoggart, L., Campbell-Barr, V., Ray, K. and Vegeris, S. (2006) Staying in Work and Moving Up: Evidence from the UK Employment Retention and Advancement (ERA) Demonstration. DWP Research Report 381, Leeds: Corporate Document Services What: qualitative research (170 in-depth interviews) with ERA customers 1. out-of-work lone parents entering the New Deal for Lone Parents (NDLP), 2. long-term unemployed (entering New Deal 25 plus programme), 3. lone parents working 16 to 29 hours a week and receiving a wage supplement through Working Tax Credit (WTC).

Finds:

- Advancement was understood to include better pay and working conditions, being promoted to a position with more responsibility, and achieving job satisfaction.
- But customers differed in how they defined advancement for themselves. Many viewed it in terms of job satisfaction rather than moving up the 'career ladder'. People have different time scales for advancement.
- Some customers' attitudes towards advancement were ambiguous or ambivalent, others rejected it as a priority for themselves.
- Views of advancement also depended on overall orientations to work and care, their life stage and experience of work e.g. those in steady work with settled work-care arrangements often developed a more positive view of advancement.

DWP (2020) The Work Aspirations and Support Needs of Claimants in the ESA Support Group and Universal Credit equivalent: final report of research findings. Research Report 983, p. 204. Available at: https://assets.publishing.service.gov.uk/government/uploads/sy

What: research commissioned to understand how to engage and support people in the Employment and Support Allowance (ESA) Support Group and in the equivalent Universal Credit Limited Capability for Work and Work Related Activity (LCWRA) group to explore how to

stem/uploads/attachment_data/file/867820/work-aspirations-and-	help them manage their health condition(s) and move towards work,
support-needs-claimants-esa-support-group-and-universal-credit-	where appropriate.
equi.pdf.	
	Finds:
	Some participants were concerned that if they expressed interest in paid work it would trigger a Work Capability Assessment and potential loss of benefit.
Hurrell, A. (2013) Starting out or getting stuck? An analysis of who gets trapped in low paid work - and who escapes. Resolution	First in a series of reports on progression from low pay. Transitions from low pay are measured over a ten year period from 2002 to 2012.
Foundation, November 2013. https://www.resolutionfoundation.org/publications/starting-getting-stuck-analysis-gets-trapped-low-paid-work-escapes/	Workers are defined as having progressed if in each of the three final years of the period they were earning above the low pay threshold.
	Workers are defined as being stuck if they only ever held low-paid jobs during the period.
	Workers are defined as 'cyclers' if they held a job above the low pay threshold at some point during the ten-year period but at the end of the period were not in higher-paid work.
	By 2012 18 per cent of the initially low-paid had progressed, 27 per cent remained stuck in low pay, and 46 per cent had cycled in between low pay and higher pay.
	Some factors associated with escaping low pay were: Being male Being younger
	Moving into a managerial, professional or technical occupation.
D'Arcy, C. and Hurrell, A. (2014) Escape Plan: Understanding who	Second in the series. In contrast to 2013 report this focuses on low-paid
progresses from low pay and who gets stuck. Resolution	workers who were in work for the majority of the period from 2002 to
Foundation, November 2014. (Also published on Social Mobility	2012.
Commission webpages)	
https://www.resolutionfoundation.org/publications/escape-plan-	Of these workers, 25 per cent made a sustained transition to higher pay.
understanding-who-progresses-from-low-pay-and-who-gets-	This suggests that job retention can aid advancement but doesn't
stuck/	

automatically lead to progression as the majority of workers did not achieve sustained progression.

Both individual and household characteristics, and employment characteristics were important in shaping who progressed and who did not:

- Single parents and workers with disabilities were less likely to progress.
- Working for a larger employer had a positive association with progression.
- Working part-time was negatively associated with progression.

Qualitative focus groups revealed that:

- in many workplaces moving to a higher-paid position was conditional on transitioning to full-time employment,
- progression policies were often not implemented effectively, and
- training tended to be given only to those who had already been selected for promotion.

D'Arcy, C, and Finch, D. (2017) The Great Escape? Low pay and progression in the UK's labour market. Social Mobility Commission, October 2017.

(Report produced by Resolution Foundation for Social Mobility Commission)_

https://www.resolutionfoundation.org/publications/the-greatescape-low-pay-and-progression-in-the-uks-labour-market/

Third in the series.

Uses the same approach as earlier reports, but focuses on the period 2006-2016. The proportions of 'escapers', 'stuck' and 'cyclers' over this period are very similar to the earlier period suggesting progression rates have not changed much in the short term.

However, comparing to the 1980s, the analysis suggests:

- an improvement in overall progression rates, but
- an increase in the risk of remaining stuck in low pay for men, and
- a fall in the risk of women remaining stuck in low pay.

Nonetheless, women remain less likely to progress (even when controlling for occupation and sector).

	 This is due in large part to them taking time out of the labour market after childbirth or switching to part time. Both reduce the likelihood of progression. The report points to the importance of sector of employment, with workers in accommodation and food services particularly likely to remain in low pay for sustained periods.
D'Arcy, C, and Finch, D. (2016) Finding your routes: Non-graduate pathways in the UK's labour market. Resolution Foundation, May 2016.	Focuses on the employment routes and earnings of non-graduates, and the link between qualifications and earnings for this group.
https://www.resolutionfoundation.org/publications/finding-your-routes-non-graduate-pathways-in-the-uks-labour-market/	Focus of the analysis is those with Level 2 educational attainment who did not attend university. Among these workers, academic qualifications are associated with higher average earnings and faster earnings growth. However, the <i>match</i> between qualifications and occupation/sector of employment appears more important. For men particularly, vocational qualifications significantly boost earnings when working in sectors like construction or manufacturing.
	This points to the importance of developing clear non-graduate education and training tracks at Level 2 and Level 3 that lead to employment in relevant sectors. It also suggests a role for careers advice, both when in education and when in work, to help workers find appropriate employment and progression pathways that make the most of their skills. The 2008/9 recession negatively impacted the earnings trajectories of young people entering the labour market at this time.
Gardiner, L. and Gregg, Paul (2017) Study, Work, Progress, Repeat? How and why pay and progression outcomes have differed across cohorts. Resolution Foundation, February 2017.	Much of this report is focused on a comparison of earnings within different cohorts of workers over the past four decades. In the latter half there is an analysis of labour market progression specifically.
https://www.resolutionfoundation.org/publications/study-work-progress-repeat-how-and-why-pay-and-progression-outcomes-have-differed-across-cohorts/	The main findings are that, compared to earlier cohorts, cohorts born in the mid- to late 1980s and the early 1990s: • started their labour market careers with lower earnings and • experienced lower rates of earnings growth over time.

Clarke, S. and D'Arcy, C. (2018) The Kids Aren't Alright: A new approach to tackle the challenges faced by young people in the UK labour market. Resolution Foundation, February 2018. https://www.resolutionfoundation.org/publications/the-kids-arent-alright-a-new-approach-to-tackle-the-challenges-faced-by-young-people-in-the-uk-labour-market/	 Several factors are likely to have contributed to this, including: a shift in the occupations held by younger cohorts towards relatively lower-paid jobs, a fall in worker mobility between firms, a reduction in within-firm annual pay increases (from around 4 per cent per year for the cohort born in the 1970s to close to zero for the cohort born in the 1980s). This is a particularly important factor in the reduced wage progression seen in more recent cohorts. This report aims to inform the development of labour market policies that promote secure and rewarding employment for younger workers, rather than the historical narrow focus on reducing youth unemployment. Drawing on previous work (e.g. the research summarized directly above), the report details the extent to which young workers have borne the brunt of the pay squeeze since the financial crisis, and highlights the growth of part-time work, self-employment, zero-hours contracts and agency work among young people. Young people are also more likely to work in lower-paid occupations and sectors compared to previous generations, with the proportion of younger workers employed in the accommodation and food services sector seeing a particularly stark increase compared to previous cohorts. There is a call for government to: recognise the importance of low-paying sectors such as social care, hospitality and retail to the life chances of todays' younger generation, and
Gardiner, L. and Gregg, Paul (2015) A Steady Job? The UK's record on labour market security and stability since the millennium. Resolution Foundation, July 2015.	 The report details how over the past two decades there has been: a fall in the share of the workless, and a corresponding rise in the share of 'insecure' workers and in full-time, secure workers, at roughly equal proportions.

https://www.resolutionfoundation.org/publications/a-steady-job-the-Men have become more likely to be in the 'insecure' group over time, uks-record-on-labour-market-security-and-stability-since-theas have young people. millennium/ Of the different forms of insecure employment, temporary employment, involuntary part-time employment, and zero-hours contracts have increased in particular. These are some of the most insecure forms of employment. In addition, the report identifies an increase in average job tenure for women over the past decades, whereas for men job tenure has seen a secular decline. Rising job tenure has both negative and positive implications, as one obverse side of increased tenure at the same employer has been a decline in between-firm mobility (which can play an important role in progression). Tomlinson, D. (2018) Irregular Payments: Assessing the breadth Doesn't deal directly with progression or sustainable employment but and depth of month to month earnings volatility. Resolution contains important insights when it comes to measuring wage Foundation, October 2018. progression. https://www.resolutionfoundation.org/publications/irregular-Uses data on banking transfers to measure volatility in pay. Finds that payments/ even for workers remaining in the same job for at least a year, month-tomonth fluctuations are very common, with: • the majority of workers having notable changes in monthly pay at least one month out of the year, a substantial share of workers experiencing changes in pay several times during the year, pay often fluctuating by substantial amounts (several hundreds of pounds). Pay volatility was more common among lower-paid workers and of greater magnitude relative to average earnings. These findings suggest a need to be cautious when measuring wage growth over the short-term since it appears that both upward and downward changes in earnings are common.

Papoutsaki, D., Buzzeo, J., Gray, H., Williams, M., Cockett, J., Akehurst, G., Alexander, K., Newton, B. and Pollard, E. (2020) Moving out to move on Understanding the link between migration, disadvantage and social mobility. Social Mobility Commission, July 2020. https://www.gov.uk/government/publications/internal-migration-and-social-mobility-moving-out-to-move-on

This report is not primarily concerned with progression but does include analysis of the link between intra-national migration and employment outcomes.

Results indicate that compared to people who stay in the local authority in which they grew up, those who moved to a different local authority tended to have higher wages and a higher likelihood of being employed in a high-skilled occupation. This is the case even when controlling for individual characteristics, suggesting the possibility that moving could have an effect over and above what would be expected given differences in the characteristics of 'movers' versus 'stayers'.

However, the analysis does not compare wages or occupations before and after a move, and no attempt is made to account for unobservable characteristics, meaning it is difficult to draw firm conclusions about the extent to which moving is beneficial for labour market progression.

Costa Dias, M., Joyce, R. and Parodi, F. (2018) The gender pay gap in the UK: children and experience in work. Institute for Fiscal Studies, February 2018. https://www.ifs.org.uk/publications/10356

Paper focuses on the gender pay gap through analysing earnings trajectories over the life course.

The authors look at wage rates by gender from age 20 to 55. While women's and men's earnings are fairly similar during their early 20s, a large gap opens up around the mid to late 20s. Before the birth of the first child, the (age-adjusted) wage gap is around 7-12 per cent. This increases to around 30 per cent 12 years after the first of the first child.

Regression analysis suggests that the gap in employment experience (either through a temporary withdrawal from employment altogether or a reduction in working hours) accounts for by far the largest proportion of the gender wage gap.

While each year of additional full-time work tends to increase hourly wages in real terms, each additional year of part-time work does not appear to lead to any real wage growth. This suggests that progression opportunities for (female) part-time workers are poor.

Blundell, R., Costa Dias, M., Goll, D. and Meghir, C. (2019) Wages, Experience and Training of Women over the Lifecycle, Institute for Fiscal Studies, April 2019	The authors model wages over the lifecycle for women who take up work-related training, to estimate whether engaging in such training can compensate for the loss of employment experience that tends to affect women after childbirth, and thereby ameliorate the gender wage gap. The findings suggest that work-related training, while reducing earnings in the short term (during the period of training) tends to increase wages over the longer term and reduces the gender wage gap slightly. The greatest benefits are found for women with below-degree education. Nonetheless, training can only partly reduce the gender wage gap and even if it were more widely taken up (e.g. if a substantial subsidy were to be introduced to reduce the cost of training) the wage gap would remain relatively large.
Costa Dias, M, Joyce, R. and Norris Keiller, A. (2020) COVID-19 and the career prospects of young people. Institute for Fiscal Studies, July 2020.https://www.ifs.org.uk/publications/14914	Mostly focuses on the impact of the COVID-19 crisis on young people (showing how young people are disproportionally likely to be working in sectors affected by lockdown, etc.), but contains a section specifically focused on progression among early-career workers. The current reduction in labour demand is likely to have particularly severe impact on young workers. Recent cohorts of labour market entrants have seen very little within-occupation wage growth during their early careers compared to earlier cohorts. Therefore, in recent times early-career wage growth has been particularly reliant on moving into higher-paying occupations (as opposed to securing higher pay through promotions within the same occupation).
	If the post-COVID-19 period ends up looking similar to the years immediately after the Great Recession, we can expect that wage progression for young people will be increasingly hard to achieve. Sharp falls in vacancies due to the lockdown and ongoing recession will make it harder to find better-paid opportunities, and for some there is a risk of falling off the career ladder altogether.
Blundell, R., Costa Dias, M, Joyce, R. and Norris Keiller, A. (2020) What has been happening to career progression? Institute for	The paper provides evidence on how pay and occupational progression during early career stages have changed over the last few decades.

Fiscal Studies, July 2020. https://www.ifs.org.uk/publications/14967

Shows that, over the past several decades:

- young people have increasingly tended to **start their working** careers in a low-paid occupation.
- more recent cohorts of young people have seen less wage progression during their early career compared to earlier cohorts. This is particularly the case for men.

The reduction in wage progression is in part due to the slower wage growth during the years following the Great Recession. But rates of *occupational* progression have also fallen. This, again, has particularly affected men.

These findings present a bleak picture for occupational progression even before the COVID-19 impact. And given that occupational progression is now the most important source of wage progression (in the absence of much within-occupation wage growth), there is a big danger that the lifetime wage trajectories of today's young workers will be severely affected by the current slowdown.

Avram, S. and Harkness, S. (2019) The National Minimum Wage/National Living Wage and progression out of minimum wage jobs in the UK – final report. Prepared for the Low Pay Commission. December

2019.https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/852506/The_NMW__NLW_and_progression_out_of_minimum_wage_jobs_in_the_UK.pdf

The report examines the wage progression of minimum wage job holders with the aim of:

- examining whether the increases in the minimum wage rate over this period affected progression out of minimum wage jobs and
- assessing which individual and job characteristics are associated with progression.

The effect of the minimum wage on progression is estimated by comparing transition probabilities in Travel-To-Work-Areas with different shares of minimum wage workers.

They find little evidence that areas with a greater share of minimum wage workers tend to have lower rates of progression. Some of the model specifications show a statistically significant effect, but the effect is not robust across specifications.

N.C. INC. W. I. D. O D. CA.	
National Minimum Wage: Low Pay Commission Report Autumn 2016. Low Pay Commission, November 2016.	Presents findings from consultation with employee and employer organisations about the introduction of the National Living Wage (NLW)
https://www.gov.uk/government/publications/national-minimum-wage-low-pay-commission-autumn-2016-report	in 2016, as well as responses from an employer survey.
	Among concerns highlighted by employers, the effect of the planned
	increases in the NLW on the pay distribution were highlighted.
	Employers raised the possibility that pay distributions would be
	compressed which could impact on incentives for progression.
	Analysis of data from the Annual Survey of Hours and Earnings (ASHE)
	shows that there was an increase in the percentage of workers paid at
	the NLW rate from 2015 to 2016. But at the same time, the percentage
	of workers paid above the NLW also increased, suggesting at least some spillover effects on pay further up the wage distribution.
National Minimum Wage: Low Pay Commission Report Autumn	Following on from the introduction of the National Living Wage in 2016
2017. Low Pay Commission, November	and concerns expressed in earlier reports about the effect on pay
2017.https://www.gov.uk/government/publications/national-	differentials within firms, several of the surveyed or consulted employers
minimum-wage-low-pay-commission-report-2017	reported having made changes to their pay structures, including
	compression of wage differentials.
	Employers worried that this would discourage progression and could
	have impacts on job satisfaction and retention. Some employers had
	also made changes to job structures, such as removing lower-level
	managerial positions. Unions and other employee representatives were
	more positive, however, and felt that employers had the capacity to
National Minimum Wage: Low Pay Commission Report Autumn	absorb pay increases in other ways than through reducing differentials. Two years from the introduction of the National Living Wage (and
2018. Low Pay Commission, November 2018.	following increases in the rates since then), this report still finds
https://www.gov.uk/government/publications/national-minimum-	employers reporting that pay differentials are being affected. In a case
wage-low-pay-commission-2018-report	study visits, retail and hospitality workers felt that pay increases
	associated with more senior roles were virtually non-existent, making
	workers reluctant to take on additional responsibilities for no or very little
	additional pay. An employee survey by the British Retail Consortium
	found that workers reported fewer opportunities for promotion.

	Employers expressed concerns about the effects of these issues on staff morale, motivation to seek out progression, and ultimately their business models, but it seems few had come up with effective ways to mitigate these concerns. Employers in retail, hospitality and social care in particular cited limited scope for addressing the issue since pressures on staff costs were already high, though some had experimented with other forms of staff reward or enrichment of roles.
	These findings (together with those from previous Low Pay Commission Reports) suggest a need to be mindful of the sometimes-small increases in hourly pay that can accompany within-firm progression to more skilled or senior roles.
National Minimum Wage: Low Pay Commission Report Autumn 2019. Low Pay Commission, November 2019. https://www.gov.uk/government/publications/low-pay-commission-	Unlike in previous reports, this report includes data analysis on the effect of the National Living Wage (NLW).
report-2019	One of the areas examined is spillovers from the introduction (and subsequent increases) of the NLW on wage rates higher up the distribution. The estimates indicate that from 2015 to 2019, there were substantial spillovers ranging up to the 35 th percentile of the hourly wage distribution.
	Nonetheless, there is evidence for wage compression in the lower third of the pay distribution. The largest increases in money terms were seen for wages up to the 5-6 th percentile, while wages at the 10 th to 30 th percentile increased less strongly. This points to a reduction in pay differentials.
	This suggests that reported concerns by employers (and some workers) in previous reports are supported by the data.
Institute for Employment Studies (IES) Progression in Employment project	

Green, A. Sisson, P. and Lee, N. (2017) Employment Entry in Growth Sectors: A Review of the International Evidence, Public Policy Institute for Wales http://ppiw.org.uk/files/2017/04/ESRC-Evidence-Review-Paper-Employment-Entry.pdf	employment and improved socioeconomic status. It can also encompass moving to a role with greater responsibility or skill requirements or improving job quality. The focus is on employer practices to support progression for low skilled workers. Findings show that the following employer interventions can help: job redesign; structured career development pathways; ensuring contracted minimum hours; multiorganisation collaborations; creation of specialist roles with appropriate training and pay; regular career conversations and development of line management capability. Success of such initiatives depends on: development of an evidence base and business case; senior leadership support; developing champions through the business; appropriate Human Resources systems and practices; a long-term perspective. Overall the research shows that workplaces should: critically evaluate promotion criteria for evidence of exclusion and bias; ensure all those involved in promotions are trained in unconscious bias; create a working environment where those involved feel comfortable about discussing bias; include all eligible people for promotion on a list, don't rely on assumptions; involve a wide range of perspectives; standardize the promotion process. ESRC international evidence on policies to encourage/ support entry into growing sectors and finds: • these can help underrepresented groups enter employment. • need to also focus on retention and career progression- particular problem in social care and hospitality. • public procurement for example in construction can be used to promote entry of disadvantaged groups.
Sisson, P, Green, A., and Lee, N (2017) Improving Job Quality in Growth Sectors: A Review of the International Evidence, Public Policy Institute for Wales http://ppiw.org.uk/files/2017/04/ESRC-Job-quality-paper.pdf	 ESRC international evidence review on improving job quality in growth sectors finds: little evidence of interventions to improve job quality in growth sectors. available evidence is case studies and not systemic.

	 some interventions link improvements in job quality to improvements in service some focus on using procurement as leverage, or on changing business model and on development of employer cooperatives.
Barnes, S-A, Green, A., Batty, E. and Pearson, S. (2017) Key worker models: What key worker approaches, capacity and capabilities are important at different stages of the journey to employment? Institute for Employment Research https://blogs.shu.ac.uk/talentmatch/files/2015/03/tm-key-worker-report.pdf Crisp, R., Damm, C., Green, A., Pearson, S., Sanderson, E. and Wells, P, (2018). Talent Match Evaluation: Progression to Employment. Project Report. Sheffield, Sheffield Hallam University https://blogs.shu.ac.uk/talentmatch/files/2018/10/talent-match-eval-progression-employment.pdf	 2 reports on Talent Match Lottery funded scheme in 21 Local Enterprise Partnerships with high youth unemployment (TM) National Evaluation 1. Evaluates how key worker support is being delivered and finds: the key worker approach needs to /has evolved from 'building a working alliance' through to 'exiting the programme' key worker needs a wide range of skills for working with young people often with multiple and complex needs. 2. Evaluation of Talent Match programme found: getting the 'right job', as opposed to 'any job' is important for keeping people in work – including how the person 'fits' the job in terms of skills, suitable hours and location. Financial incentives for employers to take on and retain an individual in work for a pre-determined period can be important for stimulating employment entry and short-term retention. role of the employer should not be overlooked. Talent match could provide in-work support as well as support for entry- deemed important for progression. Suggests conceptualising individuals' journeys towards fulfilling employment as a 'climbing frame' – where moves might be forwards, backwards and across- and to recognise individuals also vary in their progression ambitions.
Chartered Institute of Personnel and Development (CIPD) Good Work Index	CIPD Good Work Index has been developed in collaboration with academic partners and identifies seven dimensions of job quality: pay
https://www.cipd.co.uk/knowledge/work/trends/goodwork	and benefits; employment contracts; work-life balance, job design and nature of work; relationships at work; employee voice; health and wellbeing. The CIPD argue that poor job quality is causing significant

	problems in the UK. They call for government to establish voluntary human capital reporting standards; ensure support for sector deals is contingent on coherent proposals by employers to boost job quality; provide small firms with Human Resources support; work with key stakeholders; improve labour market enforcement to protect employment rights. They recommend employers: design people strategies built on job quality and wellbeing; collect good quality data on the topic; use data-driven insights to target support; pay the Real Living Wage as a minimum; provide informal and formal flexible working practices; providing learning and career opportunities; promote inclusion and social cohesion; develop line managers; provide effective channels for voice.
CIPD Learning and Skills at Work Report, June 2020	This report was written in collaboration with Accenture and is based on a
https://www.cipd.co.uk/knowledge/strategy/development/learning-	survey of organisations. The research found that although organisations
skills-work	increasingly recognize the need to improve capabilities and address
	skills gaps, there are gaps between the intent and reality of investment,
	resources and educational deployment involved. Organisations are
	failing to leverage technology. One-third of organisations state they are
	unable to address skills gaps in their organisations. Two-thirds have a
	vision for learning. Only 16% assess the behaviour change of
	participants by assessing the transfer of learning to the workplace.
CIPD (2019) Productivity and Place: The role of LEPs in raising	The report explores the role of Local Enterprise Partnerships (LEPs) in
the demand for, and use of, skills at work. Report, February 2019.	skills development and utilization in the UK. It finds that LEPs emphasise
https://www.cipd.co.uk/Images/productivity-and-place-the-role-of-	skills supply with a limited focus on skills demand resulting in a low-skills
leps-v2_tcm18-54430.pdf	equilibrium. The skills policy landscape is complex and fragmented
· - ·	creating the need for an overarching national skills policy. LEP capability
	and resource constraints meant adequate infrastructure was lacking and
	there was limited capacity to offer support outside priority sectors,
	excluding a large proportion of the local economy. Policy silos were
	evident even in local areas. In response to the Organisation for
	Economic Co-operation and Development drive for local skills
	approaches, the LEP focus on supply at the expense of demand meant
	capability to develop local skills ecosystems was limited. There was
	evidence of a tacit acceptance of a low skill/ low productivity equilibrium.
	Links between suppliers such as educational bodies and employers

CIPD (2018) Over-Skilled and Under-Underused. Investigating the untapped potential of UK skills. Report, October 2018. https://www.cipd.co.uk/Images/over-skilled-and-underused-investigating-the-untapped-potential-of-uk-skills_tcm18-48001.pdf	were weak. There was an uncritical assumption that simply improving skills supply would address the problem. Some pilot initiatives show promise e.g. two combined authorities are developing employment standards to encourage firms to offer stable, fairly paid work with training and in-work progression. Difficulty addressing skills demand was exacerbated by difficulty in influencing low-value large firms. In-work progression was limited in low skills equilibrium and the resulting overskilling was overlooked by LEPs. The UK offers a high proportion of jobs with few/no skill requirements. 17% of respondents stated no qualifications were required for entry to their role and 27% said school-level qualifications only were needed. There is a concerning fall in the generic high-skills requirements of roles. 30% stated that while a degree would be required to get their job, only lower level qualifications would be required to do the job effectively. Over-qualification affects one-quarter of the workforce and affects how much an individual can earn, as well as increasing likelihood of future spells of unemployment. Over half stated their skill levels are not well matched with their roles. Young people are more likely to report being over and under-skilled, as well as those on part-time contracts and workers in low-skill industries e.g. retail and hospitality. Those who are over-qualified are less satisfied with their jobs, earn less, and are more likely to want to quit than their matched counterparts. They are also more likely to have poor career prospects and are less likely to be promoted. Just 12% of those earning less than £20k pa have been promoted compared with 45% of those earning less than £20k pa have been promoted compared with 45% of those earning less than £20k pa have been promoted compared with 45% of those earning less than £20k pa have been promoted compared with 45% of those earning less than £20k pa have been promoted compared with 45% of those earning less than £20k pa have been promoted compared with
Sisson. P. (2020) Making progress? The challenges and opportunities for increasing wage and career progression Work Foundation Centenary Provocation Papers	 Review of current state of knowledge: that supports: a wider approach than monetary progression, progression to be seen as a pathway starting pre entry with employability/ training through entry stability to progression,

https://www.lancaster.ac.uk/media/lancaster-university/content- assets/documents/lums/work- foundation/PaulSissonsFinalPaperforpublicationBH.pdf	 trade-off between quality of initial match with need for in work support, policy to target work entry and progression outcomes jointly, a sector-focused approach (but insufficient evidence on the 'best' sectors to target), raising employers' awareness of benefits of progression strategy sharing good practice among employers (but notes in retail and hospitality activities disappeared with ending of funding).
Gunson, R., Hatfield I. and McGeoghegan, M. (2016) Jobs and Skills in Scotland Institute for Public Policy Research https://www.ippr.org/files/publications/pdf/scotland- skills_June2016.pdf	Finds lower rate of progression from low to mid/high skilled in Scotland than for UK. Attributes this to a mismatch between demand and supply of skills in Scotland. Suggests needs a flexible/ modular skills system that can work with employees/ learners and employers throughout a lifetime of learning.
Thompson, S. and Hatfield, I. (2015) <i>Employee Progression in European Labour Markets</i> Institute for Public Policy Research https://www.ippr.org/publications/employee-progression-ineuropean-labour-markets	 Review of labour market progression across European countries finds: earning progression is stronger than occupational progression and associated with employer changes. limited progression from part-time where part-time a common employment form, likewise with temporary contracts
Mion, G., Opromolla, L D, Ottaviano, G. (2020) <i>Dream Jobs</i> Centre for Economic Performance Discussion Paper No 1705 http://cep.lse.ac.uk/pubs/download/dp1705.pdf	 Compares internationally active and domestic firms and finds: internationally active have much steeper wage profiles and more opportunities for progression, these internal opportunities for progression mainly benefit managers, blue collar workers mainly benefit from moves between firms, this distinction between types of firms may help explain inequalities between workers and by region.
Jones L. (2019) Women's Progression in the Workplace Kings College London and Government Equalities Office https://www.kcl.ac.uk/giwl/assets/womens-progression-in-the- workplace.pdf	 The report reviews 100+ papers on women's progression measured in 2 ways– wage growth, and movement up a vertical occupational scale: in both cases minimal gender gap on labour market entry but widens significantly from the late 20s and early 30s/ women's progression plateaus. part-time work is an important explanation. other factors include social cloning, networks, hostile environments, and clash with external responsibilities (constant availability).

	alternative working arrangements come at cost of lack of progression (senior part-timers often full-timers who negotiate a reduction).
Harkness, S., Borkowska, M. and Pelikh, A. (2019) <i>Employment</i> pathways and occupational change after childbirth. London: Department for Work and Pensions, p. 76. Government Equalities Office	What: research uses data from Understanding Society for 2009/10-2016/17 to explore how far women 'downgrade' their careers following childbirth. They compare the careers of new mothers and fathers over the 3-5 years following the birth.
	 Finds: Gendered patterns of occupational progression are reinforced after childbirth. 1 year after 6% of mothers and 13% of fathers move up occupational ladder, 5 years after childbirth 13% of mothers and 26% of fathers move up Occupational change occurs gradually. Women tend to return to job in same occupation as the one they left but then have lower chance of promotion. Women working with the same employer are more likely to remain in the same level of job (and less likely to progress or downgrade in the occupational ladder).
Morris, G. (2016) Limits of exploitation? Consideration of the utility of progression pathways for workforce development Centre for Skills, Knowledge and Organisational Performance Issues Paper 35 March 2016 https://files.eric.ed.gov/fulltext/ED593418.pdf	 Paper makes argument that: progression pathways currently too focused on moving between skills levels/job grades employees may not all wish to progress by grade within the same job type an effective model of organisational skills development should additionally, provide greater opportunity to further develop employees within their grade. an important driver for doing so is to better equip and focus employees on the issues of innovation and change.
Royal Society of Arts (RSA) (2020) 'A Blueprint for Good Work: Eight Ideas for a New Social Contract'. June 2020. Report. https://www.thersa.org/globalassets/reports/2020/a-new-blueprint-for-good-work.pdf	This report draws on ideas from the original 2017 Taylor Review, as well as a later 2019 RSA report 'The Four Futures of Work' and reflects changes since then, including the COVID-19 pandemic and the growth of employment insecurity. The report identifies five 'good work' principles: 'security; wellbeing; growth, freedom; subjective nurture. The report recommends interventions at the micro, meso and macro levels to secure good work based on the premise that it is not the responsibility of

	the individual but rather of other institutions to secure good work. This resource is largely an opinion-piece rather than being based on a clear evidence-base.
International Labour Organization (ILO) (2018) 'Digital labour	The report is based on a survey of 3500 individuals in 75 countries
platforms and the future of work: towards decent work in the online	engaged in work on microtask platforms. Such workers are self-
world' ILO, Geneva., September 2018. https://www.ilo.org/wcmsp5/groups/public/dgreports/dcomm/	employed, well-educated and many undertook this work to supplement their income; 10% undertook this work because health conditions
-publ/documents/publication/wcms_645337.pdf	precluded other types of paid work. For 32% it was their main source of
	income. Two-thirds of US based workers earned less than the federal
	minimum wage. On average, workers spent 20 minutes on unpaid
	activities for every hour of paid work; most wanted to do more crowd work. Only 6/10 were covered by health insurance, and 35% had a
	pension or retirement plan. Most had had work rejected or payment
	refused and many struggled to communicate with requesters and
	platforms.
	There is a significant challenge in regulating platform working. The
	report recommends a suite of measures aimed at ensuring decent work,
	including allowing collective bargaining rights, applying minimum wage,
	ensuring pay transparency, covering cost of lost work, enforcing codes of conduct and enabling workers to continue a work relationship with a
	client off the platform without paying a large fee.
ILO (2019) 'What works: Promoting pathways to decent work'.	The report focuses on how income support and active labour market
https://www.ilo.org/wcmsp5/groups/public/dgreports/	policies can be combined to tackle temporal and structural barriers to
inst/documents/publication/wcms_724049.pdf	decent work in emerging and developing countries. It is not directly
ILO (2019) 'Time to Act for SDG8: integrating decent work,	relevant to the situation in the UK. The report focuses on progress towards Sustainable Development Goal
sustained growth and environmental integrity'. ILO, Geneva.	8 of the United Nations Agenda for Sustainable Development,
https://www.ilo.org/wcmsp5/groups/public/dgreports/	concerned with decent work for all. The report finds that progress
inst/documents/publication/wcms_712685.pdf	towards SDG8 is slowing down in many countries. Young people face
	major decent work deficits in all countries. The report urges countries to continue to strive for economic growth but to decouple it from
	environmental degradation by adopting technological innovations and
	changing consumption behaviour. However, it also calls into question

	the growth-based approach for wealthy countries such as the UK given the risks to the global ecosystem. Principles of social justice should encourage countries to seek a balance between sustained growth, social inclusion and decent work and environmental integrity. The report highlights the point that decent work is crucial to achieving inclusive economic growth.
ILO (2019) 'Working conditions in a global perspective'.	The report adopts the seven ILO measure of job quality comprising:
ILO/Eurofound. https://www.ilo.org/wcmsp5/groups/public/	physical environment; work intensity; working time quality; social
dgreports/dcomm/	environment; skills and discretion; prospects; earnings. Although the UK
publ/documents/publication/wcms 696174.pdf	is not analysed separately, the report includes an examination of the
	situation within the European Union which highlights continued exposure
	of workers to physical risks including posture-related risks such as lifting
	or repetitive movements in sectors such as construction. The report also
	highlights the continued prevalence of work intensity e.g. in terms of
	speed or emotional demands as well as long working hours for many. A
	minority reported negative social experiences such as bullying or
	harassment. Although many jobs required a high level of creativity and
	task variety, there were also signs of low levels of discretion and
	repetitive work. While 39% of workers across the European Union
	reported good career prospects, many did not. 78% of workers reported being in good health, and 82% reported a good work-life balance. 73%
	of under-55s reported they would be able to do their current job until the
	age of 60, with men being more optimistic than women, but this varied
	by sector and occupation. Exposure to such factors as work intensity,
	shift work, night work, unfair treatment or bullying and harassment
	reduced levels of optimism. Overall, the report highlights progress on
	many dimensions of job quality but continuing levels of concern around
	exposure to risk and low paid work.
Sadro F., and Clayton, N. (2019) Evidence review: Supporting	Evidence review drawing on impact evaluations of progression initiatives
progression from low pay. Learning and Work Institute.	to assess the most effective types of interventions.
https://learningandwork.org.uk/resources/research-and-	Programmes reviewed include WorkAdvance, Carreras en Salud (US),
reports/evidence-review-what-works-to-support-progression-from-	Project Quest (US), Step Up London, the Timewise Progression Trial,
low-pay/	West London Alliance Skills Escalator, Workforce1 Careers Centres

(US), the DWP In-Work Progression trial, Year Up (US), and other, smaller programmes.

Definitions of progression included increases in earnings or hours, better

Definitions of progression included increases in earnings or hours, better job security, and greater flexibility (though the review mostly focuses on earnings).

Key findings:

- It is difficult for labour market interventions to impact on in-work progression. Of the 30 programmes reviewed, 18 had positive impacts on employment and earnings while 12 did not.
- Effects varied by group. Gains were often largest for those furthest from the labour market and on the lowest incomes. Young people also tended to benefit more.
- Training tailored to a specific occupation or sector, combined with support to progress within that sector, tended to be more effective than general training.

Lupton, R., Hughes, C., Peake-Jones, S. and Cooper, K. (2018) *City-region devolution in England*. Social Policies and Distributional Outcomes Research Paper 2. London: London School of Economics.

What: research on the potential to take a more holistic approach to policymaking in the context of city-region devolution via a review of the policies emerging in Greater Manchester.

Finds:

- The simultaneous devolution of powers and responsibilities in different areas and the development of networks and partnerships presents an opportunity to take a more expansive view of 'employment policy' that cuts across government departments and policy areas.
- Emerging evidence of this approach can be found in the Greater Manchester Work and Skills strategy, which encompasses commissioning practices, business support and 'soft' influencing of employers alongside more traditional supply-side elements of employment support.
- While there is promise in this area, the paper finds the policies emerging in this context in Greater Manchester are part of a 'fragile settlement' which is by no means assured over the longer term

Pleace, N. and Bretherton, J. (2017) *Crisis Skylight: Final Report of the University of York Evaluation*. London: Crisis. Available at: https://www.crisis.org.uk/ending-homelessness/homelessness-knowledge-hub/services-and-interventions/crisis-skylight-final-report-of-the-university-of-york-evaluation-2017/ (Accessed: 4 August 2020).

Bretherton, J. and Pleace, N. (2016) *Crisis Skylight: Journeys to Progression: Second Interim Report of the University of York Evaluation*. Monograph. London: Crisis. Available at: http://eprints.whiterose.ac.uk/139383/ (Accessed: 4 August 2020).

What: mixed methods evaluation of Crisis Skylight, an initiative aiming to promote social integration primarily for single homeless people, people at risk of homelessness and those with a recent history of homelessness.

Finds:

- Broad view of progression: the project aimed to support service users to progress to paid work, education, training, volunteering, housing stability and better health and social support. Not a workfirst approach.
- Progression for clients with complex needs is not a simple, linear process: e.g. they identified service users who made punctuated progress where people took positive steps but then lost ground; others 'regained progress' taking steps to regain the lives they had before (e.g. where they had interrupted studies) and others made progression for the first time.

Positive outcomes were underpinned by a broader model of change, which centred on recognising and adapting to individual needs using arts-based activities, education and one-to-one support. Ongoing support was recognised as important to enable service users to maintain progress.

Velthuis, S., Sissons, P., and Berkeley, N. (2019) Do low-paid workers benefit from the urban escalator? Evidence from British cities. Urban Studies, vol 56(8).

Examines whether workers are more likely to progress in (larger) cities. Finds that results vary depending on the way wage progression is defined. Examining low pay transitions using a nationally defined threshold of two-thirds of median hourly pay, workers are significantly more likely to move out of low pay in London than in other areas. But this seems to be driven largely by the fact that overall wage levels are higher in London, such that the low pay threshold is positioned at a much lower point in London's wage distribution than the wage distribution of other local labour markets. When 'low-paid employment' is defined in terms of a set of occupations with low median rates of pay, instead of through a wage threshold, there is no evidence that low-paid workers in London experience faster wage

	growth than workers elsewhere. It is, however, possible that younger low-paid workers might derive a benefit from living in London in terms of progression, although the analysis could find no conclusive evidence for this.
Millar, J. (2019) Self-Responsibility and Activation for Lone Mothers in the United Kingdom <i>American Behavioral Scientist</i> , Vol. 63(1) 85–99	 Longitudinal study of lone parents and finds: staying in the "right" job for family commitments was often a priority, particularly when children were still at school. Return interviews in 2016, to 15 families found most of the women interviewed had stayed in work, but most had not significantly increased their pay or incomes. In-work progression was possible for some, once childcare obligations had eased, and if they were willing to change jobs and work longer hours.
Butler, P. and Hammer, A. (2020) Pay progression in routinised service sector work: navigating the internal labour market in a fast food multinational company Industrial Relations Journal 51:4, 351–371	This paper explores the impact of internal labour markets on entry level workers undertaking routinized service sector work in a market leading, fast food multinational company. Despite having potential enabling features -on-the-job training, a transparent and integrated pay structure and a professed culture of progression, movements to positions above the low-pay threshold are relatively rare. This contradiction results from operating in a sector where price leadership strategies dominate.
Sisson, P, Green, A. (2017) More than a match? Assessing the Human Resource Management challenge of engaging employers to support retention and progression <i>Human Resource Management Journal</i> , Vol 27, no 4, pages 565–580	 The paper argues that the shift in emphasis to retention and progression alters the logics of employer engagement and so also has potential implications for Human Resources practice at firm level. These include: for some organisations, participation in active labour market policies may appear more demanding and/or intrusive, employees may be asking for more wage progression (driven by the in-work conditionality element of UC), if skills are lacking employers may focus on recruiting other groups not those on active labour market policies, if progression is mainly through changing jobs/sectors it may be more difficult to engage employers.

Reichelt, M. (2015) Career Progression from Temporary Employment: How Bridge and Trap Functions Differ by Task Complexity <i>European Sociological Review</i> , Vol. 31, No. 5, 558–572	Also, difficult to identify sectors or types of employers to target that offer good jobs but comparably low barriers to entry. In the context of Germany, the paper explores if temporary contracts are a bridge into permanent employment and finds: • this is most likely for medium-skill work, • the risk of a transition to unemployment is generally equal, but increases for low- and medium-skill tasks if local labour demand falls, • only high-skill jobs seem unaffected by the employment environment,
Lee, Neil, Green, Anne and Sissons, Paul (2018) Low-pay sectors, earnings mobility and economic policy in the UK. Politics & Policy, 46 (3). pp. 347-369	 the function and consequences of temporary work must consider occupational characteristics. The paper focuses on sectoral variation in low pay: using Quarterly Labour Force Survey for a snapshot and 5 quarter longitudinal Labour Force Survey and finds: Sectors with the highest share of low paid workers provide lowest chance of leaving low paid employment. Sector of employment has a persistent effect on probabilities of low pay e.g. after controlling for their age, qualifications, migration status and disability, workers in Accommodation and Food are 17% more likely to be in low pay than an observationally identical worker in Manufacturing. Sector matters for upwards earnings mobility: low paid workers in Human Health, Finance and Insurance, and Public Administration and Defence have a higher chance of not being low paid a year later than in manufacturing- others all below manufacturing. Some sectors with low chances of escaping low pay e.g. accommodation and food services projected to expand.
Hudson, M., Netto, G., Noon, M., Sosenko, F., de Lima, P., Kamenou-Aigbekaen (2017) Ethnicity and low wage traps: favouritism, homosocial reproduction and economic marginalization <i>Work, Employment and Society</i> 31(6): 992–1009	Based on interview evidence from low-paid workers and managers in local government, the health service, facilities management and housing it reveals the double-edged nature of informality and the role of favouritism in particular in perpetuating ethnic advantage and privilege.

	Stronger forms of positive action, and even positive discrimination, are needed to address the low pay traps and restricted opportunities of ethnic minority workers.
Puttick, K. (2019). From Mini to Maxi Jobs? Low Pay, 'Progression', and the Duty to Work (Harder) <i>Industrial Law Journal</i> , Vol. 48, No. 2, pp. 143-179	Makes the case for the development of sectoral minimum wages on top of the National Living Wage to better align pay with what companies can afford and reduce costs of in work benefits as well. Also argues for right not to work more (progression in Universal Credit terms) due to family responsibilities- indicates need to match progression criteria with actual circumstances of the claimant.
Felstead, A., Gallie, D., Green, F., & Henseke, G. (2019). Conceiving, designing and trailing a short-form measure of job quality: a proof-of-concept study. <i>Industrial Relations Journal</i> . Doi:10.1111/irj.12241. Journal article.	Despite the interest in job quality, it is not always clear what is meant by 'fair' or 'good' work and there is no agreed upon short-form instrument available. The Taylor Review called for more effort to be made to produce a reliable metric for this purpose. The article proposes a new job quality measure drawing on prior research in the field. The measure is based on three principles: 1) job quality comprises a set of work features that have the capability of enhancing or diminishing worker well-being; 2) job quality needs to focus on the attributes of the job occupied by the worker and not the worker's personal circumstances; 3) several facets of job quality matter for wellbeing including pay, the organization of work, discretion, security, training, work effort, skill use and work-life balance. Other job quality measures such as that of the Organisation for Economic Co-operation and Development or Eurofound similarly include multiple dimensions. The measure covers 10 job quality domains: work intensity; learning; security; discretion; influence; control; work-life balance; social support; promotion; pay.
Bailey, N. (2016) 'Exclusionary Employment in Britain's Broken Labour Market', Critical Social Policy, 36(1): 82-103. (Journal article). https://journals.sagepub.com/doi/pdf/10.1177/0261018315601800	Using data from the UK Poverty and Social Exclusion Survey, the author found 1/3 of adults in paid work are in poverty, or in insecure and poorquality employment. One-third of this group has not seen any progression in their labour market situation in the last five years. The dataset comprises interviews with c. 8,000 adults which took place in 2012, most of whom were originally interviewed in 2010/11. The measures used comprise low income poverty measure based on equivalized household income and a direct measure of poverty.

Rafferty, A., & Wiggan, J. (2015). The underemployment of lone parents du and austerity: A challenge to in-work and Administration. https://doi.org/10.1111/spol.12190	ring welfare reform, recession conditionality? Social Policy	This study explores the extent to which lone parents not only managed to enter paid work but obtain a sufficient number of employment hours. Activation policies have increased labour market exposure at a time of greater underemployment but high levels of economic hardship, in the context of stagnant real wage growth and benefit cuts could place additional pressures on lone parent time-related underemployment if there is a lack of availability of greater employment hours to improve household income. The findings showed disproportionately high growth in time-related underemployment among lone mothers with at peak around one in five employed lone mothers with a youngest dependent child above five years of age experiencing such underemployment.
Lain, D., Airey, L., Loretto, W. and Vi workers and ontological precarity: be employment, precarious welfare and Grenier, C. Phillipson, and R. Setters <i>Ageing: Understanding insecurity and</i> Lain, D., Airey, L., Loretto, W. & Vick Understanding older worker precarity jobs, households and the welfare sta 2219–2241 doi:10.1017/S0144686X	etween precarious precarious households'. In A. sten Jr (Eds) <i>Precarity and d risk in later life</i> , pp.91-114. Derstaff, S. (2019) 7: the intersecting domains of the Ageing & Society, 39:	Policy-makers need to appreciate that, for older workers, 'sustainable work' is not simply about security of employment. Individuals' state of health and well-being, and the presence or absence of caring responsibilities, can also shape their perceptions of whether or not it is sustainable to remain in employment up to or beyond State Pension age
Loretto, W., Airey, L., Yarrow, E. (20) employment in Scotland. Scottish Go		Older workers may miss out on opportunities for skills development & training. This is linked to employers retreating from the management of older workers in the wake of age-discrimination legislation, for fear of being accused of ageism by employees. Employers need guidance in how to communicate effectively with their older employees. Many older workers express the view that, for them, 'sustainable work' means good quality, part-time jobs. Part-time employment is perceived as desirable as it would enable older workers to combine paid work and caring responsibilities, manage their own energy levels and/or health conditions, and allow them time to pursue other interests whilst maintaining income from employment. However, awareness of flexible

	work opportunities is relatively low among older workers, and part-time jobs are generally perceived to be of low quality.
	Employers should therefore ensure that flexible work options are communicated effectively to older employees.
Richard Blundell, Monica Costa Dias, Robert Joyce and Agnes Norris Keiller 2020. What has been happening to career progression? https://www.ifs.org.uk/publications/14967	Men born in each decade since the 1950s, and women born since 1985, started their careers in occupations further down the wage ladder than earlier cohorts. Young people increasingly reliant on occupational mobility to progress. Young men born in 1980s increasingly struggling to move up occupational ladder even before COVID-19.
Monica Costa Dias, Robert Joyce and Francesca Parodi 2020. The gender pay gap in the UK: children and experience in work. https://www.ifs.org.uk/publications/10356	Mothers suffer big long-term pay penalty from part-time working. One important factor is that mothers spend less time in paid work, and more time working part-time, than do fathers. As a result, they miss out on earnings growth associated with more experience. The lack of earnings growth in part-time work has a particularly big impact for graduate women, because they are the women for whom continuing in full-time paid work would have led to the most wage progression.

ARI 9: Identifying populations at risk of joblessness and poverty and intervening and evaluating successfully to prevent	
poor outcomes.	

Resource	Messages
Acemoglu, D. & Restrepo, P. (2018), 'Artificial Intelligence, Automation and Work', National Bureau of Economic Research Working Paper No. 24196 https://www.nber.org/papers/w24196	Key Finding: Automation may have complex effects on work, not simply reducing it, but also creating new forms of work and new demands for labour.
	Informed: Understanding of risks of automation and future of work.
https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork /employmentandemployeetypes/articles/whichoccupationsareathig hestriskofbeingautomated/2019-03-25	Key Finding: Automation risks are worse for low-skilled, low-income jobs, and differ by certain protected characteristics.
	Informed: Understanding of risks of automation and future of work.

Households Below Average Income survey https://www.gov.uk/government/statistics/households-below-average-income-199495-to-201718	Key Finding: Gini coefficient broadly stable, before housing costs measures of low income rose in 2017/18; after housing costs measures of low income broadly stable in 2017/18. Households Below Average Income data has a significant time lag and COVID-19 effects will not become apparent in it for a long time.
	Informed: Understanding of household income dynamics and targeting of support.
IZA Institute of Labor Economics DP No. 9236, What Works? A	Key Finding: ALMPs can take 2+ years to show positive impacts.
Meta Analysis of Recent Active Labor Market Program Evaluations	Impacts vary across groups. Adviser support and activation
(ALMPs), Card, Kluve and Weber, 2015	important element of support.
https://www.iza.org/publications/dp/9236/what-works-a-meta-	
analysis-of-recent-active-labor-market-program-evaluations	Informed: Labour market interventions development.
IZA Institute of Labor Economics DP No. 6880, Active Labor Market	Key Finding: Activation is effective outside recession. Hiring
Programs: Employment Gain or Fiscal Drain? Alessio J.G. Brown Johannes Koettl, 2012	subsidies can be effective for disadvantaged groups.
https://www.iza.org/publications/dp/6880/active-labor-market-	Informed: Labour market interventions development.
programs-employment-gain-or-fiscal-drain	mornica. Labour market interventione development.
Active Labour Market Programme (ALMP) Participation for	Systematic review found overall, ALMP programmes display a
Unemployment Insurance Recipients: A Systematic Review Filges,	limited potential to alter the employment prospects of the
T. et al. 2015	individuals they intend to help. The available evidence does
https://doi.org/10.4073/csr.2015.2	suggest that there is an effect of participating in ALMP, but the
	effect is small and we found no effect of being assigned to ALMP
	participation at a particular moment. It was not possible to examine a number of other factors which we had reason to expect as
	impacting on the magnitude of the effect and which may be crucial
	to policy makers. The results of this review, however, merely
	suggest that across a number of different programmes there is an
	overall small effect of ALMP participation on job finding rates, and
	no evidence of differential effects for different programmes. While
	additional research is needed, the review does however suggest
	that there is a small increase in the probability of finding a job after participation in ALMP.

Lain, D., Airey, L., Loretto, W. and Vickerstaff, S. (2020) 'Older workers and ontological precarity: between precarious employment, precarious welfare and precarious households'. In A. Grenier, C. Phillipson, and R. Settersten Jr (Eds) <i>Precarity and Ageing: Understanding insecurity and risk in later life</i> , pp.91-114. Lain, D., Airey, L., Loretto, W. & Vickerstaff, S. (2019) Understanding older worker precarity: the intersecting domains of jobs, households and the welfare state. <i>Ageing & Society</i> , 39: 2219–2241. Loretto, W., Airey, L., Yarrow, E. (2017) Older people and employment in Scotland. Scottish Government Research report.	Older workers face multiple intersecting barriers to employment, such as: employers' ageist attitudes regarding recruitment; health problems, and unpaid caring responsibilities (which affect women more than men due to gendered social roles). Older women are particularly at risk of poverty in later life. This is linked to gendered patterns of paid employment and unpaid caring across the lifecourse. Women are more likely than men to have had time out of the labour market to care for children and other relatives. Women are also more likely to be employed part-time rather than full-time, in lower-paid jobs. This means that, compared to men, women accrue lower levels of occupational and personal pension savings by the time they reach pension age. Risks of poverty are even higher for divorced women, who may have lost access to a share of their ex-husband's pension & savings upon divorce.
Richard Blundell, Robert Joyce, Monica Costa Dias and Xiaowei Xu 2020. COVID-19: the impacts of the pandemic on inequality. https://www.ifs.org.uk/publications/14879 Robert Joyce and Xiaowei Xu 2020. Sector shutdowns during the coronavirus crisis: which workers are most exposed? https://www.ifs.org.uk/publications/14791	The specific nature of the economic shock associated with COVID-19 has interacted with many old and deep inequalities. Active policy is needed to avoid exacerbating inequalities in income, health and education, and by gender, ethnicity and age. Sector shutdowns disproportionately affect low-paid, young and female workers. One mitigating factor is that the majority of the affected younger workers and lower earners live with parents or others whose earnings are likely to be less affected.
Monica Costa Dias, Robert Joyce and Agnes Norris Keiller 2020. COVID-19 and the career prospects of young people. https://www.ifs.org.uk/publications/14914	The COVID-19 pandemic has severely dented the career prospects of young people and threatens to have a prolonged negative economic impact on them as a result. Sharp contractions in shut-down sectors will make it harder for young people to take their first step onto the career ladder, while reduced job opportunities will make it harder for them to move into higher-paying occupations.
Jonathan Cribb, Andrew Hood and Robert Joyce 2017. Entering the labour market in a weak economy: scarring and insurance. ifs.org.uk/publications/10180	Leaving education when the economy is weak has a direct impact on employment and pay at least five years afterwards. Some of the impact is offset by lower taxes and higher benefits. Another

important potential safety net is that most people live with their parents in the first few years after leaving education, irrespective of economic conditions.

Joint view of ARIs 3, 5 and 6

Chronic Musculoskeletal Conditions

Crawford, J.O., Berkovic, D., Erwin, J., Copsey, S.M., Davis, A., Giagloglou, E., Yazdani, A., Hartvigsen, J., Graveling, R., Woolf, A. 2020. Musculoskeletal Health in the Workplace. Best Practice & Research Clinical

Rheumatology, https://doi.org/10.1016/j.berh.2020.101558
Davis, A., Crawford, J.O., Giagloglou, E., Whitmore, M. 2020. Case examples and analysis of working with chronic musculoskeletal disorders. European Agency for Safety and Health at Work, Luxembourg: Publications Office of the European Union, Crawford, J.O., Giagloglou, E., Davis, A., Graveling, R., Woolf, A. 2020. Working with chronic Musculoskeletal Disorders: Good practice advice. European Agency for Safety and Health at Work, Luxembourg: Publications Office of the European Union in Press

Musculoskeletal Disorders Prevention

Crawford, J.O., Davis, A. (2020) Work-related musculoskeletal disorders: why are they still so prevalent? Evidence from a literature review. European Agency for Safety and Health, Luxembourg, Publications Office of the European Union. Crawford, J.O., Graveling, R., Davis, A., Giagloglou, E., Fernandes, M., Markowska, A., Jones, M., Fries-Tersch, E. (2020). Work-related musculoskeletal disorders: from research to practice. What can be learnt? European Agency for Safety and Health, Luxembourg, Publications Office of the European Union.

Chronic Musculoskeletal Conditions

Musculoskeletal (MSK) conditions remain the most frequent reason people are absent from work including work-related musculoskeletal disorders and chronic MSK conditions. There is little evidence that interventions to reduce the prevalence of work-related musculoskeletal disorders (WRMSDs) have been reduced although our knowledge of associated risks has improved. For chronic musculoskeletal disorders a life course approach is needed working with health, safety and diversity to ensure sustainable workplaces can be design and that workplaces enable open communication for those with chronic problems. Interventions need not be expensive workplace changes but should be made at an organisational and individual level.

Musculoskeletal Disorders Prevention

While work has changed in the last 20 years, exposure to risk factors associated with WRMSDs have not reduced. When examining the reasons for this it was found that while risk assessments are carried out, they are inadequate, the most frequent control measures were training, job rotation or lifting aids. This lack of consideration of changing the work design was highlighted although there are country specific examples of interventions aiming to do this. However, a lack of planning and evaluation of interventions does not build the evidence base. Policy actions were identified as well as actions for intermediaries including having top level commitment and resourcing

and coherent planning. evaluation of interventions and worker
involvement.

Research centre	Relevance	Contact point, email
Institute for Policy Research	We aim to further the public good through research into issues of significant relevance to policy debate and decision-making, build links with the worlds of policy and practice, and increase public understanding of policy research through our public events and publications. We deliver activities for policymakers, researchers and practitioners to enable dual learning and original contributions to both research and practice.	Amy Thompson, Head of Policy Programmes and Communications. A.thompson@bath.ac.uk
Understanding Occupational Stress: Performance, Health, and Well- Being in High Pressured Environments	A community of academics (Universities of Bath, Bristol, Cardiff, and Exeter) & stakeholders from a range of public & private sector organisations who, through collaborative endeavours, are looking to make a step-change on the understanding of occupational stress in the workplace. The community have already began responding to COVID-19 related funding calls and working on research in this area.	Rachel Arnold, Senior Lecturer, R.S.Arnold@bath.ac.uk
The Energy and the Design of Environments (EDEn) research group in the Dept of Architecture and Civil Engineering.	The Energy and the Design of Environments (EDEn) research group in the Dept of Architecture and Civil Engineering has a long history of studying the interface between building physics & the occupant with respect to heath & other issues. We are already working on COVID-19 spread in naturally ventilated buildings – particularly emergency hospitals in refugee camps around the world. We would like to expand this into work in the UK, for example, care homes, the workplace, homes. In addition, we work extensively on low energy homes.	Professor David Coley, dac33@bath.ac.uk

Centre for Analysis of Social Policy (CASP), Bath	Interdisciplinary research centre that critically engages with policy development across all major social issues including communities, environment and place, and local to global productivity. Includes work on COVID in relation to: Care Leavers; Health; Older Carers; People with Learning disabilities; child wellbeing; governance and policy influence; inequality in health and social care; disability; work and wages; crime and criminal justice; global politics of hope.	Professor Rachel Forrester-Jones, Director of CASP rfj23@bath.ac.uk
Work Inclusivity Research Centre (WIRC)	The Centre recently launched a new workstream on well-being.	Dr Holly Birkett, WIRC Director h.birkett@bham.ac.uk
Lloyds Banking Group Centre for Responsible Business	Centre focused on robust, authentic, responsible business solutions based on high-quality evidence and theoretically informed research to deliver change for the common good and a sustainable future.	Sophie Sinclair, Engagement and Operations Manager s.c.sinclair@bham.ac.uk
ActEarly	ActEarly is a UK Prevention Research Partnership Consortium focusing on early life changes to improve the health and opportunities for children living in two contrasting areas with high levels of child poverty with a focus on Healthy Livelihoods, Healthy Learning and Healthy Places with research being coproduced with partners and communities. ActEarly is seeking to understand how we can help families live healthier lives, with a particular focus on effecting complex system level change, a context which now includes COVID-19.	Dr Jane West jane.west@bthft.nhs.uk https://actearly.org.uk/
Faculty of Economics, University of Cambridge	Effects and risks of social distancing on working patterns and practices, and how these will affect different groups and sectors	Dr Flavio Toxvaerd, fmot2@cam.ac.uk
Department of Architecture, University of Cambridge	Future of travel in terms of systems and choices: Potential new built environment and personal travel model that combines coronavirus transmission modelling with (1) locally specific social mixing and (2) a wider range of personal behaviour scenarios than hitherto considered	Dr Ying Jin, yj242@cam.ac.uk

Organisation Theory & Information Systems, Judge Business School, University of Cambridge	Making future of work healthier	Dr Thomas Roulet, t.roulet@jbs.cam.ac.uk
Human, Social and Political Science, University of Cambridge	Making future of work healthier: Implications of COVID-19 for employment, redundancies, Furlough, short-hours working, etc, as it impacts mental health	Dr Brendan Burchell, bb101@cam.ac.uk
Centre for Research in Digital Education	The Centre for Research in Digital Education explores how technology, culture, learning and policy intersect within research and practice in digital education. Research themes: Digital Cultures, Children & Technology, Data Society, and Data Education in Schools https://www.de.ed.ac.uk/	Claire Sowton claire.sowton@ed.ac.uk
The European Centre for Environment and Human Health	Conducts world-class research into the complex links between the environment and human health. Working to analyse the risks and benefits the environment poses to health	ECEHHAdmin@exeter.ac.uk
Human Resources Management Research Group- King's Business School	Wide spectrum of expertise and interest in work and wellbeing, low wage & precarious contracts, outsourcing, lack of coordinated HR policy and working conditions, fragmented working in health & social care, meaning & purpose at work.	Prof Katie Bailey- catherine.bailey@kcl.ac.uk
Well-being at Work Research Group (not a Centre)	Vulnerable Populations: Impact of COVID19 on BAME group Making the future of work healthier & more sustainable: Supporting flexible and home-working practices; Effects and risks of social distancing on working patterns and practices	Christina Butler, christina.butler@kingston.ac.uk
Centre for Law & Social Justice (L&SJ), University	Our research centre specialises in social justice issues, focusing on where law interacts with society. We have expertise in research concerning vulnerable populations, notably people with disabilities and issues of	Centre Co-Directors: Dr Jen Hendry

of Leeds School of Law	capacity, people who are care-experienced, and communities that experience discrimination.	j.hendry@leeds.ac.uk
_	Our research strengths include: health law including for children and disabled people; disability, mental health, and social care law; health implications of home working.	Professor Marie-Andrée Jacob m.a.jacob@leeds.ac.uk
London Centre for Business and Entrepreneurship Research	Impact of the pandemic on new work patterns, mental health, wellbeing and productivity of employees during lockdown; impact of remote working on the above; return to work/effects of furlough schemes; economic impact of pandemic	Prof Karin Moser, moserk@lsbu.ac.uk
Lydia Becker Institute of Immunology and Inflammation	The Institute performs fundamental and translational exploratory science, applying the latest technologies to address the key new concepts in health and areas of clinical unmet need.	Dr Fiona Foster, fiona.foster@manchester.ac.uk
Thomas Ashton Institute	The Thomas Ashton Institute is a collaborative partnership between the HSE and The University of Manchester. It's an interdisciplinary research institute concerned with the understanding of failures that occur in the world of work leading to injury or ill-health.	Darren Clement, ashton@manchester.ac.uk
Work and Equalities Institute	What COVID-19 tells us about the value of human labour	Lindsay Endell, lindsay.endell@manchester.ac.uk, wei@manchester.ac.uk
Decent Work and Productivity	Research that tackles the key question "What is, and what causes, decent work and productivity?"	Professor Ben Lupton b.lupton@mmu.ac.uk
	High relevance to priorities around making the future of work healthier and more sustainable.	
Future Food Research Beacon	Food systems, land use, sustainable food production	David.salt@nottingham.ac.uk

Propulsion Futures Research Beacon	Sustainable transport, in particular aviation. Part of green recovery; and strong regional economic dimension given importance of aviation to East Midlands Economy	David.grant@nottingham.ac.uk
Centre for organisational Health and Development	The Centre involves staff who are occupational and occupational health psychologists who are engaged in research to do with return to work, sustainable work practices, exposure to violence of key workers, work stress and psychosocial hazards at work, migrant workers and career development opportunities	angeli.santos@nottingham.ac.uk
Human Rights Law Centre (HRLC)	HRLC conducts research in the field of human rights – relevant to the thematic areas listed is research on children's rights; economic and social rights; mental health and human rights; business and human rights; freedom of expression; artificial intelligence and human rights; labour and employment law; imprisonment and human rights. All of these are relevant to following thematic areas: vulnerable populations; supporting services; trust in government and media; crime prevention; making the future of work healthier and more sustainable.	agnes.flues@nottingham.ac.uk hrlc@nottingham.ac.uk
Centre for Healthcare technologies	Support for medical device development (e.g. diagnostics, aerosol extraction, personal protective equipment), validation and NHS adoption.	steve.morgan@nottingham.ac.uk
EPSRC Programme Grant Photo-Electro	Major project involving Nottingham, Bristol and Southampton aiming to transform pharmaceutical manufacture	Mike.george@nottingham.ac.uk
GSK Carbon Neutral Laboratories for Green and Sustainable Chemistry	Making the future of work healthier and more sustainable, unique multi- disciplinary research facility hosting EPSRC/Science Foundation Ireland Centre for Doctoral Training in Sustainable Chemistry	Peter.licence@nottingham.ac.uk
Climate Econometrics	All aspects of climate change: e.g., decarbonising and Climate change: Lessons for our future from the distant past	Prof David Hendry (david.hendry@nuffield.ox.ac.uk)

Fairwork Foundation (based at Oxford Internet Institute)	Impact of COVID-19 on workers in the gig economy; quality of jobs in the platform/gig economy	Dr. Funda Ustek-Spilda, funda.ustek@oii.ox.ac.uk Prof. Mark Graham mark.graham@oii.ox.ac.uk
Transport Studies Unit	Expertise on the following topics through research on: walking & cycling, public transport planning, new transport technologies (electric vehicles, autonomous vehicles, shared mobility, digital platforms), e-shopping, transport infrastructure planning, and the relations of social equity and transport. See here. Relevance: Making the future of work healthier and more sustainable Preventing and reducing overcrowding on commutes and in the workplace and supporting active travel choices and reduced transport capacity	Prof Tim Schwanen, Director (tim.schwanen@ouce.ox.ac.uk)
Centre on Skills, Knowledge and Organisational Performance (SKOPE)	Examines the links between education and training, and the economy and society	Dr Susan James Relly, Director (susan.jamesrelly@education.ox.ac.uk)
Energy programme, Environmental Change Institute (ECI)	ECI: Interdisciplinary study of environmental change and management of future change. Energy programme at ECI: issues relating to transition to secure, low-impact and equitable energy systems – technology, skills, activities, knowledge, markets, policy, governance. Lead institution, UK Centre for Research into Energy Demand Solutions	Sarah.darby@eci.ox.ac.uk
Oxford Centre for Industrial and Applied Mathematics	Applied mathematical modelling	goriely@maths.ox.ac.uk

iHuman The Institute COVID-19 blog captures some of their responses	iHuman is an interdisciplinary research institute which analyses and promotes innovative thinking about what it means to be human in modern times, and the relationship between changing boundaries and social justice. The institute has a lot to contribute to themes of Rebuilding Communities	Prof Daniel Goodley and Prof Paul Martin co-directors iHuman d.goodley@sheffield.ac.uk
and thinking post- pandemic	(Vulnerable populations, Supporting services, Trust in government and media); and to Environment and Place (Supporting lower-carbon local economies, Land use, Making the future of work healthier and more sustainable)	paul.martin@sheffield.ac.uk
and includes this on disability and COVID-19		
Centre for Decent Work (CDW)	Relevant areas of research expertise within CDW include: working carers; labour market transitions of disadvantaged groups (young workers, disabled workers etc); workers' wellbeing and health; atypical and insecure forms of employment; and work and productivity. Work workers' wellbeing and health is, among other things, looking at the relationship between work environment, health and wellbeing which has particular relevance.	Prof Jason Heyes Professor of Employment Relations Director of the Centre for Decent Work j.heyes@sheffield.ac.uk
Active Living and Rehabilitation	Specialised research in the development, evaluation and clinical application of novel approaches to healthy living, rehabilitation and health technologies.	Sue Warren, s.warren@soton.ac.uk
Centre for Research on Work and Organisations	The Centre's research reflects its interdisciplinary approach to people and organisations, focusing on a broad range of organisational behaviour and human resource management issues, such as leadership, diversity, teams, collaborative learning, workplace and organisational learning, performance management, corporate social responsibility and other governance related transformations.	Dr Jane Perry J.Parry@soton.ac.uk
Transportation Group (TRG)	Research in TRG is wide-ranging and aimed at helping to secure sustainable transport systems for the UK and the world.	Prof John Preston J.M.Preston@soton.ac.uk

Centre for Innovation in Mental Health (CiMH)	The Centre for Innovation in Mental Health (CiMH) is a major new initiative that unites psychologists, psychiatrists, neuroscientists with our partners in local schools and NHS services to deliver translational mental health research across the life span.	Dr Nick Maguire Nick.Maguire@soton.ac.uk Prof Samuele Cortese Samuele.Cortese@soton.ac.uk Dr Peter Lawrence P.J.Lawrence@soton.ac.uk
Institute of Developmental Sciences	To advance health across the life course through research and innovation in the developmental sciences	Prof Mark Hanson m.hanson@soton.ac.uk
Human Development and Health - Developmental Origins of Health and Disease	World leading research into human development and the mechanisms that underlie its impact on health and disease	Prof Mark Hanson m.hanson@soton.ac.uk
NIRH – Southampton Biomedical Research Centre	Health, Communities, Long-term Conditions, Workforce and Health Systems	Ms Tara Jane Lamont wiep@southampton.ac.uk
Complex Healthcare Processes	Research aim to advance understanding of the ways that life-changing and life-limiting diseases impact on individuals and families, and to understand the ways that their experiences are shaped by complex health needs.	Ageing and dementia – Prof Jackie Bridges Jackie.Bridges@soton.ac.uk Cancer survivorship and end of life care – Prof Claire Foster C.L.Foster@soton.ac.uk
Cyber Security Research Group	The group undertakes basic and applied cyber security research, providing core capabilities and leadership in support to University's broader security activities.	Prof Vladi Sassone vsassone@soton.ac.uk

Institute of Developmental Sciences	To advance health across the life course through research and innovation in the developmental sciences	Prof Mark Hanson m.hanson@soton.ac.uk
Human Development and Health - Developmental Origins of Health and Disease	World leading research into human development and the mechanisms that underlie its impact on health and disease	Prof Mark Hanson m.hanson@soton.ac.uk
NIRH – Southampton Biomedical Research Centre	Health, Communities, Long-term Conditions, Workforce and Health Systems	Ms Tara Jane Lamont wiep@southampton.ac.uk
Digital Futures at Work (DIGIT)	The Digital Futures at Work Research Centre aims to advance our understanding of how digital technologies are reshaping work, impacting on employers, employees, job seekers and governments	Jackie O'Reilly J.O-Reilly@sussex.ac.uk

Annex 4: Supplementary material on Evidence Gaps

ARI 1: Preventing and reducing overcrowding on commutes and in the workplace and supporting active travel choices and reduced transport capacity

Although transport is clearly important in terms of getting people back to work, we must not divorce the 'transport' of doing that from the end-state demand of the workplace. There is no point in opening up the transport system if the workplaces cannot accommodate the numbers of people (e.g. the "Cheesegrater" building in the City of London will take about 5 hours to fill under physical distancing rules, so delivering people to the building should be scaled to its ability to receive them). So transport operational planning needs to be dev eloped that takes account of the pipeline 'door-to-desk' over a longer time period time, instead of 'door-to-door' with the timeline being simply to deliver by 9am. It is this latter approach that causes the peak hour commute, and thus the crowding issue. So there is work to be done on enabling employers to see that their work situation is within a complete pipeline and their own ability to function depends on their amending their practices to coincide with the capabilities of the pipeline (e.g. staggering presence-hours at the formal workplace and devising working patterns that allow for a combined on-site/off-site working pattern wherever possible).

We should stop thinking that the only alternatives are working at 'work' and working at home. The latter presents many problems for many people and is also by definition isolating and works against the sociality need of human beings. So alternative venues need to be sought and defined – probably there is a good market for this – and facilitated. This requires thinking about location of such activity and the consequential impacts on the design of the transport networks, and rather tears up the rule books on transport planning and modelling, where the fundamental assumptions are thus broken.

We need to understand the proxemics behind people's social interactions, realising that transport and work are actually social interactions, and to realise that physical distancing challenges the capability for sociality because it breaks the physical/physiological/psychological/neurological processes that set the classic proxemics in the design of places and systems (including public transport vehicles). This needs to be understood a lot better – the confusion between the terms "social distancing" and "physical distancing" is a good example of this lack of understanding, and it affects design and operation decisions.

Public transport and facility design need to be rethought to operate with lower occupancies. The psychology of people in space and their interactions needs to be much better understood as a complete multidisciplinary concept – this needs new approaches to the science and its methods to ensure that the understanding is sufficient for the necessary rethinking.

ARI 2: Ensuring transport is inclusive, accessible, age friendly to all and addresses social inclusion and social mobility

This of course is a complete requirement, and a lot of the responses to the comments to ARI 1 would go a long way to enabling the actions to be taken to provide the desired inclusivity.

I would argue that a lot of the excellent work undertaken hitherto in this area has been based on defining and understanding disabilities, rather than the understanding of capabilities, and designing systems to enable people to do what they are capable of, rather than to offset what they are unable to do. This applies to the workplace and work as well as to transport systems. It requires 'de-medicalising' the issue and 'personising' it instead.

We are constructing a facility to investigate all the above issues at scale (due to open May 2021), and are now proposing a COVID-based extension to that facility to enable the whole issues around physical distancing, social spacing and infection transmission to be studied also at scale in relation to buildings such as offices, public spaces (e.g. hospital waiting rooms), homes, railway carriages, buses, aircraft, etc., so that understanding can be obtained that would set the parameters for future (the proposition if accepted is aiming to open in May 2021 as well).

ARI 3: Health and safety of homeworking across age-groups

Who is home working and what is their employment contract – need to know if they are informally employed or not, informality suggests a lack of health and safety protection?

Productivity impacts of working at home. Limited research but post-COVID more people might want to work that way. Does it result in a loss of teamwork and team "spark" for innovation?

ARI 4: Supporting flexible and home-working practices, including employer responsibilities, working regulations and required infrastructure

We need more evidence as to why workers are unable to request/gain access to flexible working – may it be the issues around fear of negative career outcomes or due to managers not giving access. Furthermore, more information from managers on their fear of not fully implementing a flexible/home working practice. More evidence also needed in terms of the societal/environmental impact of mass scale flexible/home working/4-day week. More analysis needed on how to best support companies to provide the infrastructure – e.g. support for home office furniture/fast internet etc. for workers as needed. Also, more on the limitations of the current labour law in the introduction of mass scale home working policy also needed – e.g. health/safety regulations and contract law.

Gendered outcomes of home working have been gathered but given the fastchanging context, this analysis needs to be revisited (alongside how best to support fathers in their care roles through flexible working).

ARI 6: What are the current and future trends in disabilities and health conditions that working-age people face that require targeted policy measures to improve employment, health and wellbeing outcomes?

Research on disability and health conditions as they are linked with work is quite fragmented and inconclusive. More research is needed in these areas:

- Defining and measuring disability.
- Preventative employer interventions in the area of health.
- Employer and workplace interventions to support people with disability and how these can be designed and implemented effectively.
- Policy approaches and interventions to help people with disability into sustainable employment, including evaluation of existing schemes aimed at improved outcomes and schemes aimed at helping disabled people back into work when they have left.
- Policy approaches and interventions to support young disabled people into sustainable employment; there is some evidence that the Supported Internship scheme is beneficial but that subsequent support for young people is lacking, leading to unsuccessful outcomes.
- Drilling down into different types of disability and the interventions most appropriate to each one; there has been a tendency to group all disabilities together whereas there are significant differences between them.
- Intersectionality and disability: how do links between ethnicity, age, gender and disability affect individuals' employment and the different types of intervention needed.
- Research focusing on individuals' experiences and preferences.
- Research on how to engage effectively with employers to explore how workplacespecific issues such as job design, career pathways and management style in relation to disability as well as health outcomes such as stress can be improved.
- Control studies that look holistically at interventions across both work and personal life to encourage healthy lifestyles and help improve health outcomes through the life course.
- Research on the experience of carers; given we are likely to witness a significant growth in the number of people caring for family members with a disability in the workforce, more research is needed on the type of support carers might need in different contexts.

ARIS 5 and 6: What new and better approaches are there for delivering joinedup, tailored and personalised health and work support? How can we effectively engage employers, health professionals and other stakeholders to improve work and health outcomes? What are the current and future trends in

disabilities and health conditions that working-age people face that require targeted policy measures to improve employment, health and wellbeing outcomes?

Chronic musculoskeletal (MSK) disorders

Probably multi-agency and/or Research Council funding:

- Generation of new knowledge that leads to improved health for workers
 everywhere including evidence-based programmes for young people, support
 with social barriers, simple tools for workplaces to assess and reduce risks. and
 workplace intervention studies to demonstrate effectiveness of workplace
 change.
- Research into better integration of healthcare and workplace interventions towards workers with a disability including a common language between healthcare and workplace, misconceptions about MSK conditions in healthcare and workplace and effectiveness and cost-effectiveness of integration of work healthcare and workplace interventions.
- Research into how knowledge can be implemented in health policy, care pathways and compensation systems to prevent work disability such as the evidence-practice gap.
- How can knowledge and best practice be implemented in the workplace.
- Better understanding of MSK aetiology, research to inform ergonomic design and research on behaviour change in workplaces.

Musculoskeletal disorders prevention

- Research to understand the lack of engagement with risk assessment and risk management of MSK disorders in organisations; identify barriers and facilitators.
- Examine legislation, will extending the risks to be assessed reduce the level of injury?
- Design and evaluate risk assessment tools that look at all the risks, physical, psychosocial and diversity.
- Workplace intervention studies required to enable design and evaluation of workplace interventions to reduce MSK disorders, including studies that remove risks at source with a systems approach and participation from the workforce.

ARI 8: What are the different ways to define and measure labour market progression and sustainable work? How does this vary between groups and at different times in people's lives?

Research is needed on the costs as well as the benefits of and barriers to
progression as a key focus of labour market policy under Universal Credit. The
policy needs to be grounded in evidence on the costs and risks associated
with progression policies associated with longer hours or job changes for higher
wages. These could include risks to security (more secure once established in a
job and formed relationships/ less secure if move between jobs quickly- possible
disruption to skill acquisition within job); risks to well-being (linked to too many

- changes, longer commutes, less intrinsically rewarding work; risks to family (if childcare not comparable with more hours/ longer commute/ more mismatch hours and care responsibilities); risk to development of more internal progression routes (possible conflict between efforts to engage employers in developing progression pathways and promoting changes of employer for short term progression).
- Research is needed to identify the adequacy of the evidence base for and the
 factors taken into consideration in how work coaches advise on options for
 progression. This includes the extent to which advice reflects: i) knowledge of
 progression opportunities/job security with specific employers ii) awareness
 of family circumstances, childcare, housing etc. and iii) available support for inwork progression.
- Research and policy attention are needed to guide approaches to progression suitable for post-COVID recovery. There may need to be a change in focus from entry wherever followed by progression to career transitions; without that change there is a risk of massive overcrowding in typical entry routes into employment from unemployment, leading to a squeezing out of the more disadvantaged and those more likely to develop within the traditionally low paid se sectors. Attention needs to be paid in particular how work coaches could support i) those who need to take temporary jobs outside of main skill area due to prolonged closures of particular sector but who want to retain skills and return to previous career ii) those who want to retrain for new area due to changes in likely prospects in sector/ occupation post COVID- how retraining plus activation under Universal Credit can be reconciled.
- Although there are now a number of measures of job quality/sustainable work have been developed that include varying numbers of items (e.g. Chartered Institute of Personnel and Development Good Work Index, Royal Society of Arts Good Work Principles, Felstead et al (2019) short-form measure of job quality, Eurofound, Organisation for Economic Co-operation and Development all typically based on a range of items including work intensity, job security, opportunity for learning and career development, discretion and control, voice, work-life balance, social support, and pay) there is a need not for further measures but instead for the accumulation of a stronger evidence base concerning the availability of high-quality work to different communities and age groups, and across regions and sectors. Emerging evidence points to the low quality of work in the gig economy and in areas such as crowd working. Further research is needed on these sectors that are likely to witness significant growth following the COVID crisis.

We propose research that investigates labour market progression and sustainable work among older workers (50+). The following dimensions of older workers' experiences remain under-explored, and are ripe for further investigation:

- The employment-related impact of 'hidden health' issues such as menopause and early-stage dementia.
- The relationship between employment trajectories and provision of grandparental childcare.
- Gendered patterns of precarious employment in later life.

ARI 9: Identifying populations at risk of joblessness and poverty and intervening and evaluating successfully to prevent poor outcomes.

In the post-COVID context, there are indications that older workers (as well as younger workers) may be at particular risk of job loss. Research is needed to investigate the reasons for this, and to seek the perspectives of older workers about the impact of COVID on their working lives and plans for retirement.

It is also important to understand how COVID-related changes to the organisation of work may impact upon older workers. For example, research is needed that explores the opportunities and challenges associated with homeworking. For older workers with chronic health conditions, working from home might make work more sustainable, as it may allow workers more freedom to balance their work demands and their health needs. However, homeworking might pose difficulties for other older workers. There is also a need to investigate the implications of 'age' as a risk factor for COVID in terms of older workers' employment.

Annex 5: Supplementary material on key messages

Thanks to Professor Katie Bailey and Professor Jill Rubery for their work on ARIs 6 and 8.

ARI 6: What are the current and future trends in disabilities and health conditions that working-age people face that require targeted policy measures to improve employment, health and wellbeing outcomes?

How these key messages were identified and collated

A literature search was performed using the database Business Source Complete searching for peer-reviewed journal articles focusing on 'disability' OR 'health' AND 'work' along with a general search using these terms on Google. This identified several relevant peer-reviewed studies in both management and health journals considered of sufficiently high quality and relevance to include, along with some reports written by disability charities e.g. Scope, Leonard Cheshire. Several items were not included due to low quality, or because they were opinion pieces not based on primary or secondary evidence. The emphasis of the search was on disability and longer-term health-related conditions given the wording of the ARI, but some evidence was also gathered relating to the effectiveness of interventions, and work-related conditions such as stress by searching for 'stress' and 'wellbeing'.

A purposive sampling approach was also used to search for evidence on the research pages of the websites of relevant known high-quality sources including: Chartered Institute of Personnel and Development (CIPD), Trades Union Congress (TUC), EHRC, The Advisory, Conciliation and Arbitration Service (ACAS), ONS, DWP. An email was sent to Professor Ian Kessler of King's College London, an expert in the field, for his advice on potential sources, which resulted in the inclusion of one unpublished item of relevance. It should be noted that this was not a comprehensive review given the time and resource constraints, and that further, relevant studies may have been inadvertently omitted. Especially, it should be noted that the topics of workplace health and wellbeing and occupational stress have been the focus of very extensive research and reviewing the full evidence base on these has been beyond the scope of this exercise.

Key messages

Longitudinal analysis of disability trends in the UK points to increasing numbers of people aged 65+ living with a disability, notably cardio-vascular disease, dementia and functional impairment (Bandosz et al., 2019; Guzman-Castillo et al., 2017). Given the rising retirement age, this is a cause for concern. Research by Leonard Cheshire (2020) notes that 40% of the working age population in the UK is predicted to have a long-term health condition by 2030. Britton and French (2020) found that a significant percentage of employment decline among older workers is due to health-related issues, while Baumberg (2015) shows that more highly educated people with disabilities are more likely to be in employment. Davies and Drinkwater (2018) show

that disability has a greater impact on employment for men and older workers and for those with mental as opposed to physical health problems.

Prevention policies at societal and employer levels might help to alleviate the consequences of these health trends, which all point to the growing significance of a range of disabilities in coming years.

Evidence from a range of sources points to the ongoing employment gap for disabled people, albeit one that is narrowing (DWP, 2020). 52% of disabled people of working age are in employment, with rates among those with learning difficulties standing at just 15% (EHRC, 2017; TUC, 2019), despite many people with disabilities wanting to work. Disabled people are more than twice as likely as the non-disabled to be unemployed (Scope, undated). Rates are even lower among working age adults known to social care, with just 5.7% of those with learning disabilities being in employment (Hatton, 2018). 73% of disabled adults stating they had stopped working due to health conditions or disabilities (Leonard Cheshire Foundation, 2020). The DWP (2020) found that disabled people move out of employment at twice the rate of non-disabled and move into work at around one-third the rate of non-disabled peers, and the gap increases with age.

Evidence from a range of sources shows that there is a persistent and significant disability pay gap that is increasing (TUC, 2019) especially for women and young people, and many disabled people to live in poverty (EHRC, 2017). Moreover, disabled people are clustered into particular sectors, notably human health and social work, wholesale and retail trade and education (DWP, 2020), suggesting that there is scope for other sectors to do more to employ disabled people.

The DWP (2020) found that the most common health conditions of working age people are: depression or anxiety; musculoskeletal conditions; other health problems or disabilities; mental illness; chest or breathing problems, progressive illness; digestive problems; heart problems, diabetes; learning difficulties. In terms of the health conditions/disabilities most associated with absenteeism, mental ill-health is the main cause of absence followed by musculoskeletal conditions while stress remains among the top causes of long and short-term absence (CIPD, 2020b). 1:6 employees in the UK report mental ill-health such as anxiety or depression each week (ACAS, 2020). Research points to increasing levels of workplace stress leading to absenteeism due to heavy workloads and management styles. The main causes of stress have been identified as: workload (60%), management (42%) and balancing home/work life (35%; ACAS, 2019).

Although employers are putting adjustments in place to support people with health problems or disabilities, research suggests employees struggle to access these and managers are ill-equipped to help (ACAS, 2020). Organisations continue to adopt a reactive rather than a proactive approach (CIPD, 2020b). The evidence relating to

the effectiveness of adjustments is unclear and there is a deficit of controlled studies examining the use of specific work adjustments (ACAS, 2020). Baumberg (2015) shows that employers tend to be more sympathetic in relation to short-term rather than long-term impairments leaving many disabled people 'struggling on' at work. Only 8% of people say their organization is 'very good' at preventing employee anxiety/stress (ACAS, 2019). Research by the Leonard Cheshire Foundation (2020) found that 66% of employers said that the costs of workplace adjustments were a barrier to employing disabled people.

This points to the need to invest in interventions aimed at improving the employment prospects of individuals with disabilities at a societal level. Kessler (2018) found that the supported internships scheme is very successful in helping young people with disabilities into employment, but post-programme support is more challenging. However, research by the EHRC (2017) and by Scholz and Ingold (2020) suggests that the Work Programme is not effective for people with disabilities, leading to just 18% finding work through that route; instead, the programme reproduced disability inequality and exacerbated workplace exclusion. The Leonard Cheshire Foundation (2020) argues in addition that there are problems with the Work Capability Assessments process. Moreover, the Foundation (2020) is critical of the government's unambitious target to increase the number of disabled people in employment by a mere 100,000 per annum. In all, it seems that there is scope for considerable improvement within organisations and at a policy level to lead to better outcomes for people with health conditions and disabilities.

Another related issue that warrants consideration is the rising number of carers in employment. Austin and Heyes (2020) found there are around 3.7m employees who are also carers in the UK and argue that employer support is critical in their ability to manage work and caring responsibilities, although only 40% said their employer was carer-friendly. Their report suggests 1.6 million carers are struggling. The report authors call for more flexible policies to support carers and argue that they need more support with their own mental wellbeing.

Although still very early, emerging research indicates the negative impact of COVID-19 on workplace health outcomes with 43% stating their general mental health has deteriorated since the outbreak and 35% their physical health (CIPD, 2020a).

In sum, the evidence base points towards serious deficits in the UK's approach to enabling individuals with disabilities or health conditions secure sustainable work. Existing programmes require refinement to ensure they are achieving their objectives, and more needs to be done to encourage employers to implement both preventative and supportive policies and practices.

ARI 8: What are the different ways to define and measure labour market progression and sustainable work? How does this vary between groups and at different times in people's lives?

How these key messages were identified and collated

A literature search was performed using the database Business Source Complete which identified several relevant peer-reviewed studies in management journals considered of sufficiently high quality and relevance to include. A purposive sampling approach was also used to search for evidence on the research pages of the websites of relevant known high-quality sources including: Joseph Rowntree Foundation, Institute for Fiscal Studies, Resolution Foundation, CIPD, ONS, DWP. Searches were performed on the websites of known academic research centres and institutes focusing on these topics. It should be noted that this was not a comprehensive review given the time and resource constraints, and that further, relevant studies may have been inadvertently omitted.

Key Messages Progression:

- There is a need to widen the criteria for successful progression beyond increases in pay and hours (Sisson 2020) to ensure jobs match workers' needs and preferences, and that workers are enabled to develop stability/security (including guaranteed hours/stable schedules) to provide a platform for developing skills and/or strategies for internal or external wage progression. Pay progression on its own may be a poor indicator of sustainable progression as pay found to be increasingly variable (Tomlinson 2018) and potentially linked to labour market conditions (Velthuis et al. 2019). A two-year project to explore widening progression criteria is underway at the University of Manchester (Rafferty, Hughes and Velthius).
- Employers need to be engaged in the development of progression paths (Institute for Employment Studies 2019) as these have declined over recent decades, but the potential for internal progression paths is indicated by research showing progression by sector is very variable even for equivalent workers (Lee et al. 2018). Progression paths need to allow for training or development within the same job/ same grade (Morris 2016) and to be sector/occupation specific, not general (Green et al. 2016; Sadro and Clayton 2019). For example, progression in accommodation and food services is likely to remain poor (D'Arcy and Finch 2017).
- Evidence concerning the impact of the National Living Wage on wage
 progression is mixed. However, there is some evidence of wage compression in
 the lower third of the pay distribution (Low Pay Commission 2019), with this
 problem especially acute in low paying sectors such as retail, hospitality and
 social care (Low Pay Commission 2018).
- Progression opportunities may vary by region, e.g. Gunson et al. (2016) found that progression from low to mid/high skill jobs is lower in Scotland than for the

rest of the UK whereas Velthuis et al (2019) found that low-paid workers in London experienced faster wage growth than those based elsewhere but not progression on an occupation basis was no faster. There is a need for more such regional analysis that drills down into the specific skills equilibrium across regions, cities and counties of the UK so that more targeted and nuanced measures can be developed.

- Barriers to and meaning of progression vary by group and life stage. For those with caring responsibilities and /or health issues there are five priorities:
 - the right to prioritise compatibility /sustainability of work and life particularly at specific stages e.g. childcare or care of older adults or those with illhealth.
 - ensuring options for flexible and part-time work are available at recruitment to avoid the trap of no or low progression for part-time workers/enabling older workers to stay in work,
 - normalising flexible working post-COVID, but avoiding new forms of segmentation between those working only at home and those working outside the home.
 - providing more options for flexibility in the extent of work commitments to avoid requirements to commit to excessive work in order to progress,
 - offering more focused interventions aimed at addressing the specific needs of lone parents (lone parents face particularly acute problem of item –related underemployment (Rafferty and Wiggans 2015) and report mixed experiences of retention support from Job Centre Plus and once in work and very little experience of advancement support (Ray et al., 2010)) Lone parents may define advancement in different ways (Hoggart et al. 2006).

For BAME groups, there is a need to reduce concentration in occupations with limited progression, but also improve transparency in Human Resources processes (Wood and Wybron 2018, Hudson et al. 2017).

For women: since they are less likely to progress than men (D'Arcy and Finch 2017), more targeted interventions are needed. Notably, it has been found that training alone cannot compensate for the gender wage gap (Blundell et al. 2019).

For young people, although entry into employment may need to be prioritised to avoid Not in Education, Employment, or Training status, there is a need to provide post-entry support to ensure early career wage progression (Crisp et al. 2018). Research shows that young people have borne the brunt of the pay squeeze (Clarke and D'Arcy 2018) and are more likely to work in low-paying sectors; therefore, government needs to work with these sectors such as social care, hospitality and retail to improve the life chances of younger workers. Moreover, Blundell et al. (2020) show that young people have seen less wage progression in their early career compared with earlier cohorts thus painting a bleak picture for them.

For those on Universal Credit: there is a need to improve the quality of support provided by Work Coaches to help those with complex needs moving into work (Bush et al. 2019). A National Careers Service model is proposed by Green et al. (2016). However, some claimants are concerned that expressing an interest in paid work might lead to loss of benefits, so more work is needed to identify how to address this problem.

Job quality and sustainable work:

- A number of measures of job quality/sustainable work have been developed that include varying numbers of items. The main areas typically included are work intensity, job security, opportunity for learning and career development, discretion and control, voice, work-life balance, social support, and pay. There probably is no need for the development of further measures, but rather for the accumulation of a stronger evidence base concerning the availability of high-quality work to different communities and age groups, and across regions and sectors. Most research on job quality is at the aggregate level which can shed light on general trends, but especially in light of the COVID crisis, it is more important than ever to drill down into the sectoral, demographic and regional variations in job quality, as well as variations between large firms and SMEs, and to develop local level recommendations.
- Most of the evidence suggests that the UK continues to have a low-skills equilibrium offering poor quality work especially at the lower end of the pay scale. In particular, there is a high level of self-reported under-employment among certain groups such as low-paid retail workers (Ussher, 2016). Evidence from the CIPD (2019) points to ongoing weak links between employers and education providers and weaknesses within Local Enterprise Partnerships. There is a need to strengthen these links and to work with employers and other organisations within local ecosystems to generate the demand for higher levels of skill.
- Emerging evidence points to the low quality of work in the gig economy and in areas such as crowd working. Further research is needed on these sectors that are likely to witness significant growth following the COVID crisis.

COVID-related key messages:

- Job matching matters for productivity and for individual and family stability and well-being; post-furlough there is an urgent need to allow more space /time for job matching including pre-employment retraining on large scale to take place both for those displaced and for young people who may otherwise be stuck in either no work or low wage entry jobs offering limited progression. In recovery from COVID, a more holistic approach to supporting progression in employment may be needed in line with research into how to promote inclusive growth.
- Young people are disproportionately likely to be working in sectors affected by lockdown and the current reduction in labour demand will probably have

especially adverse consequences for them, and it is likely that wage progression will be especially hard to achieve (Blundell et al. 2020; Costas Dias et al. 2020).

Annex 6: Examples of relevant funding streams

The work group was concerned that there is no single place that one can go to see what research has been and is being funded by a range of different research awarding bodies. In its deliberations the working group assembled the following information relevant to the ARIs on the future of work.

UKRI has a range of relevant funding streams including, for example the Future Leadership Fellows funding and the Industrial Strategy Challenge Fund (on the latter see https://www.ukri.org/innovation/industrial-strategy-challenge-fund/). It is also funding research on the effects of COVID-19: https://www.ukri.org/funding/funding-opportunities/ukri-open-call-for-research-and-innovation-ideas-to-address-covid-19/

The ESRC and the HSE very helpfully provided the following information from their areas of responsibility:

HSE Competition of Questions and Ideas for HSE's science, engineering and evidence needs arising as a result of COVID-19

As a result of the COVID-19 pandemic, the world has experienced disruption on a scale not seen since World War Two. Rapidly, people, systems, processes and procedures have had to adapt to cope with the challenge the virus has presented. As the country starts to prepare to move out of lockdown, significant change to how we think, function and operate is likely to be apparent, stimulating the need for science, engineering and evidence to look at a range of issues, both immediate and over a longer time scale.

HSE have worked with the Foresight Centre and Science Hubs to develop a number of initial thought starters, to explore likely trends and drivers and to help facilitate strategic conversations. These are presented in this document.

HSE's Foresight Centre has performed a rapid, high-level synthesis of how changes to the working world due to the COVID-19 pandemic may influence a number of trends affecting HSE – now and in the future. These changes may create challenges, threats and opportunities. In discussion with HSE's Science Hubs, this information has been further refined and is presented as 'thought starter' questions below. They are not fully comprehensive across the entirety of our work but are provided to stimulate discussion and allow those questions and ideas pertinent to your subject areas to be identified.

Topic	Thought Starter Questions

Managing work

A constant change is taking place in working life which manifests, for example, as flexibility and lean-thinking, favouring low hierarchy pop-up teams, crowdsourcing and dividing a task to micro and macro assignments, rising significance of inner

motivation and autonomy as the primary models of completing chores, as well as an effort towards continuous evaluation and monitoring. For example, flexible and active cooperation with others, continuous learning, the ability to master the larger picture and foresight skills, as well as team coordination, are all skills which are required more and more often.

Changes to
how work is
managed and
organised

If there are fewer workers in the short-term doing a greater volume of work – how do we know that this is being appropriately managed in terms of working hours / management of fatigue etc?

If the work-life balance shifts for some workers, and the interaction between caring responsibilities and work changes, what evidence might we need to provide assurance that risk assessments are appropriate and necessary safeguards are in place to protect against negative health impacts?

What evidence do we have that duty holders are appropriately managing those new to a workplace environment (assuming that many workers will be required to do work that they may not have previously done) – so that they are not exposed to physical or psychological risks? Do they have the appropriate skills to do this? What additional information and guidance might be required?

How do we ensure that there has been an appropriate shift in habits, attitudes/ beliefs and behaviours around the safe organisation of work and working in close proximity to others – both colleagues and customers.

What are the risks to health, safety and well-being of a remote-working workforce? How do we ensure that employers have the necessary management and leadership skills for dealing with increased remote working and issues around social distancing?

Does HSE need to assess the nature of changes to perceptions and attitudes to risk management and any actions that are necessary as a result of this e.g. should duty-holders be encouraged to provide back to work refresher training?

Greater focus on authoritative government sources. Need to quell social media / fake news. Big public appetite for information and this means HSE need to have clear communications. Need for risk communication research?

What impact is COVID-19 likely to have on where people work, the future of commuting and of public transport?

Need for a retrospective look at the UK government and HSE's response to the pandemic. What went well what didn't?

Workplace adaptations

What additional guidance is needed in respect of mitigating the spread of COVID-19 in the workplace - workplace design, best practice, controls, primary and secondary transmission issues?

Gig / Ione working normalisation of remote working

What are the health and safety implications of increased numbers of lone workers? e.g. homeworkers in some occupations - as enforced homeworking due to COVID-19 is likely to create new models / structures for organising and delivering work activities.

How will the demographic composition of certain industries and job roles shift in light of the anticipated longer-term displacement of some jobs or tasks – and where will different groups of workers (e.g. more vulnerable groups such as older workers and those with health issues) work in the future?

Changes in skill requirements, skill shortages, demographic, social inequality changes

The crisis will prompt a reappraisal of what we - individually and collectively - value most, inevitably leading to significant social change. [A You Gov poll of 4000 people found that 91% wanted to change some aspect of their livers after the pandemic.] Quarantine will have a detrimental effect on the mental health of the population. Negative effects of the economic crisis will be concentrated among those most at risk and with lower resources. Tension may increase between social demographics which weather the crisis differently. However, the crisis may also bring a new wave of communal support, social enterprises, localism and solidarity.

Skills shortages and gig economy	What could HSE do to help protect the health, safety and wellbeing of workers in the gig-economy?
,	Could HSE make use of online gig economy platforms for engagement or even regulatory purposes?
Age and gender profile of the workforce	What evidence on segmentation of the workforce (by age and gender) will be important – so appropriate measure can be put in place for those at most risk from exposure (e.g. more vulnerable groups may have to be excluded from certain work)?
	Do we need to consider the age and gender composition within occupations to identify where risk mitigation measures need to be focused (as the age structure will help explain differences in fatalities, and also gender albeit to a lesser extent)?
Social inequalities	What effect might the widening social inequalities and the drive for increased employment and productivity following the crisis have on health, safety and wellbeing in workplace of the future?
	What evidence on changes in inequalities do we need between different demographic groups within the workplace in light of COVID-19 – identifying any implications for managing risk (indications are that inequalities are likely to increase).

Health

The more affluent part of society is displaying a rising interest in their health and the various means of health and well-being improvement. Their requirements on health get steadily higher, and they are more prepared to pay for sustaining their fitness. Also, they are proactively adopting a diverse range of devices monitoring their physical functions and shape. Meanwhile, the prospects for the less health-aware part of the population are deteriorating, and it is possible that some of them cannot expect to live as long and healthy life as their parents. Many organisations are recognising that they need to take an active role in supporting their employee's mental health. Novel solutions to combating mental illness are likely to emerge.

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Mental ill-health	What should HSE's role be when the population is able to return to
	work, and what steps might it take to support employers and

	employees to be better placed to cope with mental ill health issues in the workplace?
	What can be learnt from managing mental health during the pandemic, including any novel solutions?
	Do employers have access to the resources they need to effectively manage mental ill health issues, arising as a result of the isolation of home working, for instance?
	What support and guidance do duty holders need to deal effectively with the potential escalation in mental health issues / anxiety in younger workers? e.g. groups that have already (pre-COVID-19) been anticipated to have increasing levels of mental health issues.
	How do we mitigate against potential obsessive-compulsive disorder problems with hand washing / distancing – what support and guidance do duty holders need?
	How do we recognise and address post-traumatic stress disorder in front line, health care workers and others?
Physical health	What are the consequences of poorer lung health as a result of COVID-19?
	How has the profile of musculoskeletal disorders ill-health changed? More home working could reduce some serious MSD's but there could an increase in Display Screen Equipment issues due to home working.
	Could more widely held health and well-being data provide opportunities for improved access by HSE to population-based health and safety data?
Health Surveillance	How effective are the current occupational health surveillance systems, both at the national level and in workplaces, for measuring the direct and indirect health impact of COVID-19 of frontline workers?
	How useful is Syndromic Surveillance, which is a pragmatic, rapid and systematic approach to gather information about workers' new symptoms (e.g. cough, fever, or shortness of breath) in workplaces in response to COVID-19 and similar pandemics?

Automation and robotics

Technological solutions may help combat the epidemic, cope with the quarantine, and ease its economic consequences. The crisis will lead to innovations, including permanent changes in our use of digital solutions and models of distributed governance. However, the epidemic could mark the defining moment for surveillance, censorship and personal data. The relative success (or otherwise) of a 'science-led' approach in the UK may further reinforce (or undermine) public faith in science and expert opinion.

in science and expert opinion.	
Monitoring	What role can technology play as employers grapple with the new realities of socially distanced working?
	When and how will state surveillance be reviewed and rolled back after the crisis? What protections will need to be put into place to mitigate the risk of personal data breaches and abuse/misuse, e.g. imposed on

	employees by unscrupulous employers - potential for workplace bullying/coercion.
	Could there be increasing investment and innovation in AI and machine learning and what benefits could these technologies bring to future H&S management, advice or regulation?
	Accelerating HSE's approach to remote inspection – drones, digital risk assessments, video calls, data provision etc.
	Could improved access and functionality provide more trustworthy and affordable devices and Apps for workplace exposure monitoring?
	If AI has an increasingly central and important role – in monitoring, managing and control – providing links between services, processes etc. What new risk might emerge as a result of this?
	Is it likely that voice analytic technology will become more widespread as companies seek to remotely monitor staff wellbeing?
	What are the health, safety and well-being risks and opportunities associated with greater reliance on remote monitoring technologies?
Acceleration of	What effects is this likely have on the regulation of worker health
adoption of	safety and well-being? What are the possible implications of increased
automation to	cyber-crime, particularly if <u>immature technologies are being rushed into</u>
implement	service?
social	
distancing of workforce	
Automation	What are the possible health, safety and wellbeing effects of changing
changing roles of workers	workers' roles with respect to increased automation of tasks?

Changes to Industry

Accelerating improvements in various sciences rapidly change manufacturing technologies and practices. For instance, advances in automation, robotics, and big data are powerful transformation drivers. Furthermore, broadening energy and material solutions are pivotal in a world of increasing demands on efficiency. Also, machine learning, the internet of things and real-time monitoring are gradually becoming part of processes in some pioneering sectors of manufacturing industry.

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Accelerated	If advances in Industry 4.0 technologies increase faster than originally	
trend towards	anticipated, what work sectors are likely to be most affected and how?	
Industry 4.0	What effects might the COVID-19 crisis and its aftermath have on the H&S in the UK manufacturing industry? Will the onshoring of old industry and enforced social distancing within the current manufacturing sector lead to increased risks? Longer working hours, pressurised work, skills issues, reduced staffing?	
	If accelerated advances in additive manufacturing/new materials take place, which sectors will be affected and what might it mean for health and safety? Would HSE need to change its regulatory and/or engagement approach to account for a more local-based and sharing economy?	

Future energy trends	How should HSE respond to potential threats and opportunities provided by future energy trends?
Impact of	What will COVID-19 mean for logistics in the future?
acceleration of	
ecommerce	

Summary of approved COVID-19 ideas

Time-critical COVID-19 ideas

- The Use of Positioning Technologies to Support Physical Distancing Measures in Workplaces
- A risk-based Heat Map Identifying areas where workplace infection risk of COVID-19 could be high in England
- How to identify workplace outbreaks clusters what to measure when you do and how to collate/analyse such data
- Development and application of an agent-based model for workplace transmission of COVID-19
- Comparative levels of WRS in people from different ethnic backgrounds given the apparent differences in susceptibility to / severity of COVID-19
- Development of a timeline of guidance and standards
- COVID-19 impact on the risk of a serious incident in the offshore oil and gas industry
- Explore how the application of the Creeping Change HAZID (CCHAZID) may be applied to identify potential threats and potential safeguards (control measures) given the unique circumstances now faced due to the COVID-19 pandemic
- Managing process safety and human factors risk during and after COVID-19
- The potential impact of new ways of working on process safety
- The health and safety consequences from different shift patterns adopted since COVID-19 on the offshore renewable energy workforce
- Investigate efficacy of Ultraviolet (UV) to fight COVID-19 within Respiratory Protective Equipment (RPE) & ventilation
- Can medical vacuum systems be repurposed for LEV exhaust?
- Investigating the Role of Indoor Ventilation on the Potential Spread of SARS-CoV-2
- Localised Ventilation Controls to Reduce the Risk of COVID-19 Transmission
- Review healthcare ventilation guidance in the context of COVID-19
- Review of COVID-19 Personal Protective Equipment (PPE)-Related Data
- Develop 'COVID-19 PPE bible' summarising all PPE Tech team responses in succinct and searchable format
- Assess practicalities & effectiveness of using Powered Air Purifying Respirators (PAPR) & Investigate feasibility of rolling out large numbers PAPR
- Filter life of PAPR before break-through occurs
- Investigating the Droplet and Splash Protection of Eye Wear Worn for Protection Against COVID-19

- Development of qualitative and quantitative risk assessment methodologies to assess COVID-19 control measure effectiveness
- Costs and benefits of new work arrangements
- Review variation in COVID-19 statistics (R (reproduction) value, infection/mortality rates, presence of outbreaks)
- Profile workplaces based on their response to COVID-19
- Analysis of track and trace data for workplace safety
- To measure whether certain aspects of workplace environments, or controls put in place for COVID-19, significantly affect the potential for transmission and contamination (Potential shared work with Food Standards Agency)
- Using operational business contact to collect in the best way data to get reliably and representative data on workplace COVID-19 controls and their practicality and efficacy – i.e. how best to influence this quick analytical research to advise on how they should do this. Some ideas based around limitations and risk of HSE data collection highlighted by the pandemic
- Investigating Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) for reporting of COVID-19 as occupational disease or death
- Translating risk stratification from a community to a workplace setting
- Characterise COVID-19 transmission/exposure mechanisms, including the types of processes, operations, procedures that give rise to exposure
- Mapping of Mental Health and Wellbeing provision to support a safe return to work - obtaining evidence of effective implementation
- Coughing in Asymptomatic or Pre-Symptomatic Carriers and the Spread 0f COVID-19
- Investigate aerosol /particulate spread with fluorescence
- Assessing Transmission of COVID-19 in the Workplace Including Mitigation of Risks for Infection
- Factors influencing success in return to work following self-isolation and/or illhealth
- Workplace Communication and Noise Risk Challenges Following COVID-19
- Remote working
- Understanding how to create a better workplace culture in the UK in order to tackle violence, bullying and harassment
- Applying the Make It Happen Model to managing COVID-19 transmission in the workplace
- Assessing how the pandemic is changing the structure and working practices of the UK workforce and the implications for COVID-19 and other risks
- Performance of respiratory protective equipment after decontamination
- Fit testing of Respiratory Protective Equipment
- Value of flexible barriers

- Use of positionable Local Exhaust Ventilation (LEV) to capture patients exhaled aura
- Consider repurposing of existing systems i.e. scavengers
- Repurpose medical vacuum suction systems to provide engineering control
- Consider engineering controls in dental surgeries to minimise reliance on PPE i.e. LEV, review heating, ventilation and air conditioning requirements etc.
- Managing uncertainty in modelling used to inform public health or public safety decisions
- Keeping Britain's backbone in good health
- Are you sitting comfortably?
- The effect of widespread homeworking on the incidence of Work-Related Upper Limb Disorders (WRULD)
- The risk of increased incidence of musculoskeletal disorders given the physical effects of relative inactivity during lockdown
- The impact of the relaxation in drivers' hours rules on exposure to whole body vibration and musculoskeletal disorders
- Any changes in the prevalence of musculoskeletal disorders among warehouse operatives working longer hours and more intensively

Non-time-critical COVID-19 ideas

- The effect of different leadership styles and people management behaviour on the health of workers while living through, and in the recovery phase following, a pandemic (e.g. levels of work-related stress, sickness absence, management of health conditions)
- The impact of leadership and management style on successful return to work following
- COVID-19 related absence (due to ill health or furlough)
- Assessing current planned survey-based research by study design (e.g. Prospective Investigation of Pesticide Applicators' Health) and feasibility of modifying question sets to assess the impact of the pandemic on working practices and workplace risks
- Investigate effectiveness of patient isolation tents / flexible containment technology. i.e. the 'Ebola Bubble', the 'Patient Isolation Dome', ventilated headboards, protective head box etc.
- Develop own patient isolation tent covering head only called DAISiES -Disposable Aerosols Inhalation Suppression Enclosure System
- Loughborough University PPE study (Ergonomics and human factors learning for future supply chain guidance)
- Combine face shields / RPE into single integral piece; leaving Europe (and requirement for CE marking), we could propose HSE certification process for specialised PPE equipment
- Simplify RPE decontamination i.e. use of tear off strips

- Test disinfection of fit testing hoods UV or fluorescence
- Emotional/behavioural drivers of RPE/mask selection
- Risk of commuting and public transport to worker safety
- Has COVID-19 increased the prevalence of work at home by UK employees, and has it increased the prevalence of physical injury and mental harm arising from work activities?
- The impact of COVID-19 on long-term lung function and exercise tolerance
- Whether COVID-19 infection and/or the altered use of respiratory protection affects susceptibility to or severity of occupational asthma
- The nature of the relationship between COVID-19 exposure and occupational agents causing lung fibrosis
- European Lung Foundation additional social media project
- Occideas Pilot Project relating to COVID-19 and other workplace risks in the construction sector
- The mental health implications of remote working and managing virtual teams
- The relative health impact of job retention, furloughing and job loss
- The health implications of job insecurity and business insecurity on employees, freelancers and the self employed
- Any differential impact on resilience to younger and older workers given the marked age gradient in the severity of COVID-19 infections
- The psychological consequences of pandemic related underemployment as well as unemployment
- The impact of continuous bereavement, trauma and vicarious trauma on front line workers
- The immediate and longer-term effects of workplace moral injury (e.g. perceived injustice, whistleblowing, etc.)
- Stress and working from home
- Scoping study to assess the best options for, and feasibility of, research into the direct and indirect impacts of COVID-19 on UK workers, including short and longer terms impacts
- Systematic review of the methods and frequency for respiratory health surveillance
- Putting questions in the Labour Force Survey 2021 that ask about the previous 12 months and will help assess whether reported work-related ill-health was linked to COVID-19 – directly such as self-reported work-related infections or lung conditions etc., or indirectly such as self-reported stress, anxiety, musculoskeletal disorders, etc. Discussions are already underway but HSE would need to fund any additional question/s permitted by the Labour Force Survey
- Research to review the effects of COVID-19 on HSE statistical collection both in terms of biases and actual outcomes, wider than RIDDOR (see other proposal)
- Research to assess using available official statistics or reanalysis of such data the impact of COVID-19 on work practices/approaches such as gig work,

- homeworking, etc and the impacts on H&S may encompass some of economic costs derived from subsequent project
- Can we generate using HSE contacts a robust enough and representative enough sampling frame of business (possibly also workers or their reps) that could be used for online surveying and was not resource intensive to maintain
- HSE sources are largely slow or delayed outcome indicators can we develop some reliable fast OHS indicators in a similar vein to the fast ONS business indicators.
- Costs to Britain to the Corona outbreak/ 'Costs of Workplace Corona Exposure' estimate
- The economic cycle and Health and Safety
- The effects of COVID-19 pandemic on the workforce in terms of conventional RIDDOR accident reporting during 'lockdown' and 'working from home' arrangements
- A regulator for work that is good for health (as well as preventing harm)
- Effect that training/supervision has on current controls
- The contribution of communications processes, people management practices and support interventions to maintaining workplace health during work disruptions due to COVID-19 (e.g. home-working, major changes to work demands, furlough)
- Performance of respiratory protective equipment