

# **BUILDING A SHORTER WORKING WEEK**

**INVESTIGATING THE POTENTIAL  
FOR A FOUR DAY WEEK IN THE  
UK CONSTRUCTION INDUSTRY**

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4 DAY  
WEEK



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# EXECUTIVE SUMMARY

Innovations in how we work are a constant and will always be necessary for the health of our economy and workforce. Coronavirus has undeniably changed how people relate to work and since the start of the pandemic, a four-day workweek with no reduction in pay, has catapulted up the agenda. A recent poll by Survation found that 64% of Britons would support the introduction of a four-day work week with no reduction in pay. (1)

This report assesses the desirability, feasibility, and implementation potential for a four-day week in the construction sector. Construction is a huge industry, employing almost 2.3 million people in the country, generating around £110bn of output annually and accounting for a massive 6% of UK GDP. (2)(3)

In the UK, there are still around four 'blue collar' workers to every three 'white collar' workers – in industries such as water management, agriculture, transport and, indeed, construction. (4) Research and trials however have historically focused on the desk-based professions. There is an assumption that a four-day week is irrelevant or impossible for the workers outside of computer-based work, or that it is an upper- or upper-middle class luxury. In the following pages we explore the potential for construction workers and consider how this transformative policy could benefit workers in the rest of the economy. For a four-day week to be truly transformative it must also be inclusive. We desperately need trials of a four-day week in construction and other similar sectors to demonstrate its potential for all workers and tackle some of the key problems faced by the sector.

The construction industry is extremely overworked. Just 14% of construction labourers work fewer than 40 hours a week, with 13% reporting that they work over 60 hours. (5) Employees in the sector also report some of the highest work-related physical and mental health problems, most of which are intimately connected to overwork.

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1 Survation (2021) Four day week: final tables; Available at: [https://www.survation.com/s-21-000470finaltables\\_4dayweek-1/](https://www.survation.com/s-21-000470finaltables_4dayweek-1/)

2 Ibid.

3 Rhodes, C. (2019) Construction Industry: Statistics and Policy House of Commons Briefing Paper No. 10432; Available at: <https://researchbriefings.files.parliament.uk/documents/SN01432/SN01432.pdf>

4 Office for National Statistics (2021) A01: Summary of labour market statistics ONS; Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/summaryoflabourmarketstatistics>

5 TAllderson, L. (2018) Dangerously tired: what fatigue is doing to the industry Construction News; Available at: <https://www.constructionnews.co.uk/special-reports/dangerously-tired-what-fatigue-is-doing-to-the-industry-09-08-2018/>

- Construction workers are currently putting in more than 5 hours more per week than the average worker in Britain. (6) British workers already spend considerably more time working than the rest of Europe. (7)
- Accident and injury rates in the sector are around 60% higher than the national average, putting construction workers at the 3rd highest for risk of all industries in the UK. (8) It is also the deadliest sector to work in by some margin and accounts for more than a quarter of the nation's workplace deaths. (9)(10) This is often linked to sleeplessness, lack of attention and fatigue – all issues related to overwork. It has been found that accidents are more likely to occur at the end of long shifts, and that such accidents involve a larger number of people and are more likely to lead to fatalities. (11)
- Construction workers have extremely poor levels of work-related physical health. On-site labourers have a 79% higher incidence of musculo-skeletal disorder than the average UK worker, 42% suffer from knee pain and over 60% of industrial workers have to deal with lower back pain. (12)(13)(14) Studies show that it is not just the demanding physical nature of the labour, but working too many hours, that cause this.
- Mental illness is pervasive in construction. 83% of workers in the sector have experienced 'moderate to severe' mental health issues, particularly stress- and trauma-related illnesses like PTSD, depression and anxiety. (15) Alcohol and drug abuse are also prevalent, as is insomnia. Shockingly, the suicide rates for manual labourers in construction are 3 times the national average. (16) There is an extensive literature on the relationship between overwork and mental illness that applies here.

6 Office for National Statistics (2021) HOUR03: Average hours worked by industry ONS; Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/averagehoursworkedbyindustryhour03>

7 Trades Union Congress (2019) British Workers putting in the longest hours in Europe, TUC analysis finds TUC; Available at: <https://www.tuc.org.uk/news/british-workers-putting-longest-hours-eu-tuc-analysis-finds>

8 Hodgson, L. (2014) Accident frequency rate: what do you need to know about your AFR Sitemate; Available at: <https://sitemate.com/uk/resources/articles/safety/accident-frequency-rate/>

9 Health and Safety Executive (2020) Construction statistics in Great Britain, 2020 HSE; Available at: <https://www.hse.gov.uk/statistics/industry/construction.pdf>

10 Health and Safety Executive (2021) Work-related fatal injuries in Great Britain HSE; Available at: <https://www.hse.gov.uk/statistics/fatals.htm>

11 Friedman, L. S. et al. (2019) Injuries associated with long working hours among employees in the US mining industry: risk factors and adverse outcomes Occupational and Environmental Medicine; Available at: <https://oem.bmj.com/content/76/6/389>

12 Labour Force Survey (2021) LFS – Labour Force Survey – Self-reported work-related ill health and workplace injuries: Index of LFS tables [see esp. table: lfsillnd] LFS; Available at: <https://www.hse.gov.uk/statistics/lfs/index.htm>

13 O'Reilly, S. C. (2000) Occupation and knee pain community study Journal of the Osteoarthritis Research Society International; Available at: <https://core.ac.uk/download/pdf/82306375.pdf>

14 Murtezani, A. et al. (2011) Prevalence and risk factors for low back pain in industrial workers Folia Med; Available at: <https://pubmed.ncbi.nlm.nih.gov/22359986/>

15 BC Building Traders (2020) 83% of construction workers have experienced a mental health issue BC Building Traders; Available at: <https://bcbuildingtrades.org/83-of-construction-workers-have-experienced-a-mental-health-issue/>

16 Office for National Statistics (2018) Suicides for people in construction and buildings trade occupations, ages 20 to 64 years, England, 2001-2017 ONS; Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/adhocs/009381suicidesforpersonsinconstructionandbuildingtradesoccupationsages20to64yearsengland2001to2017>

Various studies, which are outlined in the following, demonstrate that reducing work hours, even modestly, has the potential to drastically improve these problems.

Despite these likely and significant benefits of reducing work hours, there are several important factors to consider on the way to implementation. First, the structure of contracts and work hours in the sector is not as neat as the 'conventional' 5-day week, 9-5. In these cases, perhaps a 20% reduction in total work time, or a decision not to come in on a Friday could move the industry towards more manageable work hours. Many workers are also working on zero-hours contracts, agency or self-employed, each of which present potential complications. For workers to benefit from reduced hours, a standard must be set by contractors with their employees, explicitly putting reduced hours in writing with no reduction in pay and giving special attention to how overtime is managed. Unions, many of whom have recently backed a four-day week, will be instrumental in managing this transition. (17)

While unions, government and employees must play a role, this change is likely to be instigated and most radically propelled forwards by ambitious and forward-thinking contractors, at least initially. Research suggests that most contractors are worried about the effects of reducing work hours on output. As this paper outlines, there are very good reasons to question whether this is a valid concern. As well as changes to physical and mental health, productivity could increase, too. Rested workers are more productive, fewer mistakes are made and quality of workmanship improves. This has been demonstrated for physical labour in many other relevant contexts. Working out the extent to which this is true, and in which contexts, requires experimentation.

The industry is suffering from a drastic lack of labour supply. Employment is shrinking, vacancies are on the rise. However, the sector intends to grow massively over the next few decades, with the country ramping up green infrastructure, ambitious transportation projects and housebuilding plans. A four-day week, or a similar change in work hours, could make construction significantly more attractive to prospective workers, at similar wage costs, as well as retaining existing workers, handing the industry an important and much-needed win at a critical moment.

- There are currently 38,000 job vacancies in the sector, up from only 9,000 in 2009 and now higher than at any point in the last 20 years. (18) It is estimated that the industry requires 217,000 new construction workers by 2025 just to meet demand. (19)
- Construction workers change professions with abnormally high frequency and the retirement age is significantly lower than the national average. Losing staff means a loss of experience and lower work quality. The principal reasons given for exiting the industry are either explicitly given as or related to work hours. (20) This is also usually why potential new recruits decide against joining the industry.

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17 Wearmouth, R. (2021) Unions officially back three-day weekend in big breakthrough for UK four-day week The Mirror; Available at: <https://www.mirror.co.uk/news/politics/unions-officially-back-three-day-24981083>

18 Office for National Statistics (2021) UK job vacancies (thousands) – construction ONS; Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/timeseries/jp9l/lms>

19 CITB (2021) Britain builds back: construction will need 216,8000 new workers by 2025 to meet demand CITB; Available at: <https://www.citb.co.uk/about-citb/news-events-and-blogs/britain-builds-back-construction-will-need-216-800-new-workers-by-2025-to-meet-demand/>

20 The Construction Industry Training Board (2018) Fuller working lives in construction CITB; Available at: <https://www.citb.co.uk/media/2bylp3yw/fuller-working-lives-in-construction.pdf>



- An astonishing 99% of on-site construction workers in the UK are male. (21) Alongside work culture, the principal barrier to more women joining the on-site workforce is unsociable hours. Instituting a four-day week could rectify this and radically change the demographic make-up of construction.

Given the manifold likely benefits of introducing a four-day week in the construction industry, this report proposes a series of trials. There are different policy and implementation options that must be explored to figure out the most appropriate and effective approach for different kinds of work area and project specification.

We do not believe that the sector is ready for the wholesale implementation of a four-day week, government mandated or otherwise. We do believe, however, that to progress to such a state, government should financially and logistically support any and all contractors who are visionary and ambitious enough to introduce a four-day week in their workplaces. History will look kindly on such innovators.

### **A NOTE ON THE USE OF THE TERM: "FOUR-DAY WEEK"**

Throughout this report, we refer to the transformative potential of the four-day working week. However, it is important to note that the arguments made also apply more generally to the principle of shorter working time with no reduction in pay, the precise models of which may vary in line with industry-specific requirements and existing variations in working patterns.

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<sup>21</sup> Tawse, H. (2021) Gender diversity in the construction industry is incredibly low! Pennyfarthing; Available at: <https://www.pennyfarthinghomes.co.uk/gender-diversity-construction-industry-incredibly-low/>

## INTRODUCTION

Since the start of the coronavirus pandemic, the movement for a four-day week has gathered an extraordinary amount of momentum. The concept, that of reducing the working week from an 8-hour 5-day weekly commitment to an 8-hour 4-day week, with no reduction in pay, might once have seemed unrealistically utopian. But countless trials, studies and growing interest from mainstream political parties and powerful companies around the world are making the prospect look more and more enticing and achievable. The Prime Ministers of Finland and New Zealand, as well as Scotland's leader, have all pointed to the idea's merits. The Spanish, Scottish and Irish governments have all announced recently that they will financially support companies willing to trial a four-day week. Germany's largest trade union also secured a deal earlier this year to offer employees their choice of a pay-rise or a four-day week. (22) Even Japan, a nation notoriously identified with overwork (to the extent that they have their own term – "karoshi" – for death from overwork), the government included a recommendation for a four-day week in its annual economic policy guidelines.

This has been coupled with a groundswell of support for the idea amongst workers and voters, as well as widespread positive media coverage. A recent poll by Survation found that 64% of Britons would support a four-day week with no reduction in pay. (23) A lot of this comes from the fact that the pandemic has forced serious qualitative shifts in the way many of us work. Whole swathes of the global population have been confined to their homes, which has led to a new familiarity with working from home, as well as an increase in flexible working and numerous government-supported furlough schemes. This has generated a reimagining of the structure and nature of work for millions of people. People are committed to a new way of working, and appear ready to take risks to realise a new work-life balance. 47% of employees surveyed recently said they would consider quitting, rather than return to employment after the pandemic, without flexible working as an explicit option. (24) This new, emboldened enthusiasm could generate a wholesale reimagining of the way we work.

Four-day week research has so far focused (mainly, but not exclusively) on those able to conduct their work remotely, specifically those doing computer-based work. There are a large number of people who simply cannot do that, often key or essential workers such as nurses, delivery-workers or on-site labourers. These people need to be physically present at their places of work. One of the most oft-cited trials of a four-day week was at Microsoft Japan, while another, Perpetual Guardian in New Zealand, is a financial services company.

Other large pilots include those instituted by KPMG, Deloitte and Kickstarter, all office-based enterprises. While there have been widely reported positive impacts on mental and physical health, wellbeing, the ability to use free time creatively and

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22 Käckenhof, T. et al. (2021) A Raise or a Four-Day Week; biggest German union seals new deal Reuters; Available at: <https://www.reuters.com/article/us-germany-wages-idUSKBN2BM1PY>

23 Survation (2021) Four day week: final tables; Available at: [https://www.survation.com/s-21-000470finaltables\\_4dayweek-1/](https://www.survation.com/s-21-000470finaltables_4dayweek-1/)

24 Brown, J. (2021) Half of employees would quit without flexible working post-pandemic People Management; Available at: <https://www.peoplemanagement.co.uk/news/half-employees-would-quit-without%20flexible-working-post-pandemic-poll-finds#gref>



constructively, reductions in resource use and an increased commitment to work, much of the news coverage has focused on productivity. Perhaps surprisingly, it's been found that working fewer hours can often lead to more work getting done – at least where it's been tried. This highlights a fundamental difference between 'work' and 'duration', two aspects of labour which, while conventionally dealt with together, are thankfully being understood as distinct facets of output. It's being consistently revealed that more can be done in fewer hours. At Microsoft Japan, for instance, productivity went up by 40% when a four-day week was instituted, more than enough to cover a 20% reduction in working hours.

It is important to consider more than productivity alone, but it does seem to be the key metric on which the pragmatism of the idea is judged. Other socio-economic impacts of note include reducing unemployment by sharing work out, as well as combatting inequality, reducing environmental degradation, improving mental and physical health and allowing people more time to spend with their families, in their community or dedicated to productive unpaid labour. Research on these impacts is well developed. (25) Nonetheless, it seems that the crucial question for many in the policy and industry space is whether four-day week companies can maintain economic output on a par with those working a conventional five day week. The existing data suggests that they can, but it is uncertain whether this trend would translate to physical labour, such as that carried out in the construction industry. While the wider benefits to society would likely be very similar, the productivity question could be different in this case. This could make the prospect less appealing to those primarily focused on economic output.

Worldwide, 80% of people don't work at a desk. (26) In Western nations specifically, the proportion of people who can realistically work from home is still only around 40%. (27) If we are serious about instituting a four-day week for the betterment of society, the economy, and the environment, it is time for us to properly consider how it might play out for those whose work is not tied to a desk. This is a question of inclusivity, but also of practicality. If a four-day week is to be a transformational shift in how we work, it needs to be relevant for as many people as possible. These workers are often on short-term or precarious contracts, required to work unconventional hours and lack sufficient holiday or sick pay. To be successful, a four-day week cannot be designed exclusively for white collar workers, for whom the introduction of the idea is more straight-forward.

In fact, the history of a reduced working week has its genesis in these sectors. It was organised factory workers who forced their bosses to mandate a 10-hour, then 8-hour working day in the early 19th Century. Surprisingly, output actually increased and, perhaps more intuitively, accidents and mistakes were significantly reduced. (28)

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25 4 Day Week Campaign (2021) Resources Available at: <https://www.4dayweek.co.uk/reports>

26 Emergence (2018) The Rise of the Deskless Workforce Available at: <http://desklessworkforce2018.com/>

27 Travers, M. (2020) What Percentage of Workers Can Realistically Work from Home? New Data from Norway Offers Clues; Forbes; Available at: <https://www.forbes.com/sites/traversmark/2020/04/24/what-percentage-of-workers-can-realistically-work-from-home-new-data-from-norway-offer-clues/?sh=7b58643978fe>

28 Robinson, S. (2012) Bring back the 40-hour work week Salon; Available at: [https://www.salon.com/2012/03/14/bring\\_back\\_the\\_40\\_hour\\_work\\_week/](https://www.salon.com/2012/03/14/bring_back_the_40_hour_work_week/)



This was such a consistent rule that Frederick W. Taylor, famed for 'scientific management' and theories around improving industrial efficiency, recommended reduced working hours as a means of increasing productivity. In *Shop Management* and *The Principles of Scientific Management*, Taylor demonstrates the merits for health, wellbeing and overall efficiency of reducing working hours. (29) American industrialist Henry Ford was one of the first large employers to heed this advice, and in 1926 he instituted a five-day week and saw output rise, while also giving workers more time to rest and – as Ford pithily pointed out – buy the products they themselves had made, thus stimulating the wider economy. A five-day week was then cemented into law in 1938 in the US. This union-driven policy shift was a critical part of the government's response to widespread unemployment during the Great Depression, as well as a way of giving workers more recovery and leisure time, while improving economic security. It was believed, correctly, that sharing out work more equitably, with more people working fewer hours each, would create jobs and alleviate destitution. Around the same time, UK firms were instituting similar policies, with Boots notably introducing a two-day weekend in its factories in 1934, while keeping pay level, explicitly to reduce burnout.

The UK currently works the longest full-time hours in Europe, except for Greece. Controversially, the maximum working week in the UK is still 48hrs, although workers can easily opt out of this and it does not apply to self-employed workers. Those working in the construction industry are particularly overworked, as we will explore, presenting an incredible opportunity to reap the manifold benefits of a shorter working week in a sector riddled with challenges produced by long working hours. This report will investigate the desirability, feasibility and avenues for implementation of a four-day week in the construction industry in particular, in an effort to improve the sector – for employees, employers and the wider economy – while broadening the scope of four-day week proposals and making them more inclusive. This is an important first step in ensuring that a four-day week does not leave out those at the sharp end of existing labour practices, while offering a meaningful set of proposals to extend its emancipatory promise to the majority of the population.

## DESIRABILITY

### ***AN OVERWORKED INDUSTRY***

Labourers in construction are notoriously overworked. The UK is already strained across the board when it comes to work-life balance. A pre-Covid report commissioned by the Trades Union Congress (TUC) found that British workers spend more time on the clock than the rest of Europe, spending 42 hours labouring versus an average of 40.2 hours for the EU. (30) The pandemic notwithstanding, work time for the employed has only decreased by 18 minutes a week in the last 10 years. It's even worse for

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29 Nyl, C. (1995) *Taylorism and hours of work* Journal of Management History; Available at: <https://www.emerald.com/insight/content/doi/10.1108/13552529510088295/full/html>

30 Trades Union Congress (2019) British Workers putting in the longest hours in Europe, TUC analysis finds TUC; Available at: <https://www.tuc.org.uk/news/british-workers-putting-longest-hours-eu-tuc-analysis-finds>

construction workers. A recent data set published by the Office for National Statistics showed that those working in construction are currently putting in more than 5 hours more per week than the average worker. The only industries that work longer hours are those working in agriculture, forestry and fishing and mining, energy and water supply. Prior to the pandemic, construction workers were still working consistently longer than the national average by a similar margin. (31) Interestingly, these numbers include those who work part-time, and given that many working in construction work on a project basis with gaps between jobs, the true figures for hours worked per week are actually much higher than advertised. This should be unsurprising to anyone familiar with the industry, one in which workers on the ground regularly commit to consistently long hours and six-day weeks. As one article put it recently: “for most people, Saturday is the best day of the week. But for many construction workers it’s just another work day.” (32) After surveying almost 1,000 UK construction workers, the Chartered Institute of Building reports that just 14% work fewer than 40 hours a week, 45% work 41-50 hours, 29% work 51-60 hours and 13% more than 60 hours. On top of this, 44% reported spend 2-3 hours a day commuting. (33)

Those in different occupations within construction have to work different hours, predictably. Crane operators reportedly work longer average hours (at 52.8 hours a week) than any other single profession. (34) Similarly, shopfitters – those who fit and install retail and service stores with equipment, furniture and fixtures – regularly report working 50-60 hour work weeks. (35) Invariably it is those on-site who tend to be more overworked, and it is a feature of the industry that these individuals have little control over their hours. Lacking power, workers are likely to work longer hours for extra money despite tiredness, and while this accelerates project deadlines, the practice demonstrably leads to unnecessary increased costs to contractors, while lowering productivity and increasing the frequency of accidents. A recent research project undertaken by Construction News found workers complaining of a ‘cancerous’ culture of long hours. Some reported consistently working longer than 12-hour shifts, with one employee stating ‘it’s no wonder there are high accident and mental health problems in the industry. On one project I worked 80-hour weeks for three months straight and was a wreck.’ Another outlined a similar scenario: ‘I have on quite a few occasions experienced 18-19 hours on site, then home for a nap and back for 7am, which [gave] me approximately three hours’ sleep.’ (36)

Most construction workers are self-employed, agency or zero-hours contractors, at the behest of their employers, and there is an incentive to deliver projects within the shortest possible length of time, driving unhealthy amounts of time spent on site, 6-day weeks and overtime.

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31 Office for National Statistics (2021) HOUR03: Average hours worked by industry ONS; Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/averagehoursworkedbyindustryhour03>

32 Greenwood, A. (2020) Challenging the six-day working week Mainbrace Constructions; Available at: <https://www.linkedin.com/pulse/challenging-6-day-working-week-angus-greenwood/>

33 Alderson, L. (2018) Dangerously tired: what fatigue is doing to the industry Construction News; Available at: <https://www.constructionnews.co.uk/special-reports/dangerously-tired-what-fatigue-is-doing-to-the-industry-09-08-2018/>

34 The Construction Index (2011) Crane drivers work longest hours The Construction Index; Available at: <https://www.theconstructionindex.co.uk/news/view/crane-drivers-work-longest-hours#:~:text=The%20ONS's%20Annual%20Survey%20of,of%2052.8%20hours%20a%20week.>

35 Gardiner, J. (2012) *Should we work all hours?* Building; Available at: <https://www.building.co.uk/focus/should-we-work-all-hours/5039631.article>

36 Garner-Perkis, Z. (2018) *Workers condemn ‘cancerous culture’ of long hours* Construction News; Available at: <https://www.constructionnews.co.uk/news/knowledge-news/workers-condemn-cancerous-culture-of-long-hours-09-08-2018/>

Contracts regularly include ‘as and when required’ clauses, meaning that workers can be instructed to appear on site whenever employers deem it necessary. As such, there is limited scope for workers to institute a healthier work-life balance on their own. In recent years there have been a number of wage and working rule agreements made by major construction bodies, including the Construction Industry Joint Council, where workers are entitled to work fewer than the government recommended 39 hours per week (not accounting for overtime), but most workers are at the mercy of contractors less willing to prioritise such boundaries. (37) Even when these kinds of agreements have been reached on paper, the reality can be very different. In 2014 there was a court-case in which Hertel (UK) Ltd and AMEC Group Ltd were required to pay some of its employees pay in lieu of notice, but only covered the 38 hours a week their workers were contracted for, despite the fact that in reality they were putting in at least 44 hours a week. (38)

It should be plain to see from the above that there is an urgent need for the construction industry to change its relationship to work hours. A four-day week with no reduction in pay for construction workers would be a dramatic shift. The change would need to be driven by employers, perhaps in the form of trials (as will be explored in later sections of this paper) and would likely have drastic impacts on many important areas. Research shows that reducing work hours can have profound effects and given the construction industry’s position as one of the most overworked sectors in the UK economy it is ripe for change. This paper aims to explore whether a four-day week could deliver that.

## ***SAFETY AND PHYSICAL HEALTH***

Construction is understood to be a typically dangerous industry as those working in the industry are considerably more likely to have their safety and physical health impacted on by their profession. While things have been improving in recent years, on-site accidents are still relatively frequent. A full 2.6% of employees in construction are involved in work-related accidents annually, which, while it may not sound particularly high, is the third highest rate of work-related accidents for any UK industry. The national average is 1.5%. (39) Many of these are slips, trips and falls (24%) but surprisingly this number is significantly lower than for comparable industries (29%). Instead, what makes up the largest proportion of fatal injuries on site are falls from a height (48%), being trapped by something collapsing/overturning (16%), being struck by a moving/flying/falling object (12%), being struck by a moving vehicle (10%) and contact with electricity or electrical discharge (4%). Overall, in 2019/2020 there were 40 fatal injuries to workers in construction – making it the deadliest sector to work in by some margin and accounting for more than a quarter of the nation’s workplace deaths. (40) (41)

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37 Construction Industry Joint Council (2018) Working rule agreement for the construction industry CJIC; Available at: <https://cecascotland.co.uk/wp-content/uploads/2018/09/WRA-August-2018-IR532018PDF.pdf>

38 Croner-i (2014) Overtime and pay in the construction industry Croner-i; Available at: <https://app.croneri.co.uk/feature-articles/overtime-and-holiday-pay-construction-industry>

39 Hodgson, L. (2014) *Accident frequency rate: what do you need to know about your AFR* Sitemate; Available at: <https://sitemate.com/uk/resources/articles/safety/accident-frequency-rate/>

40 Health and Safety Executive (2020) Construction statistics in Great Britain, 2020 HSE; Available at: <https://www.hse.gov.uk/statistics/industry/construction.pdf>

41 Health and Safety Executive (2021) Work-related fatal injuries in Great Britain HSE; Available at: <https://www.hse.gov.uk/statistics/fatals.htm>

The most recent UK Labour Force Survey (LFS) demonstrated that construction workers are among the most likely (along with those in agriculture, forestry and fishing) to develop musculo-skeletal disorders. More than 2% of construction workers experienced such problems, either caused or made worse by their jobs, in the last 12 months. This is a rate 79% higher than the average UK worker. (42)

While these numbers wouldn't fall to zero were a four-day week instituted, it is established fact that tiredness and fatigue, let alone stress and psychological illness driven by overwork (explored below) contribute to accidents. Sleep is an important relevant factor. One systematic review of relevant research studies found that some 13% of work injuries are related to sleep problems alone. The same study also posited that sleep deprivation makes workers 62% more likely to have an accident at work. (43) There is a well-documented relationship between overwork and problems with sleep. (44) At the extreme end, one study found that those working 12-hour days or longer were 7.5 times more at risk of severe sleepiness than their co-workers. (45)

Overexertion is another element at play, with one prominent US employee rights group claiming that it is the second leading cause of on-the-job injuries and accidents. (46) This is often a result of long hours in physical labour. While comparative figures for the UK are lacking, US estimates state that some 31% of all non fatal injuries are the result of overexertion. (47) It is important to take breaks to avoid this, which are legally mandated, as well as keeping an eye on signs of overexertion as it builds throughout the day, but working long hours and rushing to complete projects is just as crucially linked. Workers not having the time to rest and recover leads to excessive physical strain and, as a result, physical injury.

Attention also suffers from overwork. While for desk-based roles this can be a serious problem, for those working in physical labour it can very easily lead to physical harm. This is true both for working long hours on a single day and to working for many days consecutively. This is one reason why it is important to factor in total hours worked when considering a four-day week, rather than simply compressing hours. An important study in the *Scandinavian Journal of Work, Environment and Health* on the effects of overwork on the cognitive function of hundreds of automotive workers found a significant decline in performance and speed on several tests for cognitive function. The study found that those who had worked at least 8 hours of overtime over the previous 7 days had 18% poorer performance on neuropsychological tests and took

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42 Labour Force Survey (2021) LFS – Labour Force Survey – Self-reported work-related ill health and workplace injuries: Index of LFS tables [see esp. table: lfsillnd] LFS; Available at: <https://www.hse.gov.uk/statistics/lfs/index.htm>

43 Uehli, K. et al. (2013) *Sleep problem and work injuries: a systematic review and meta-analysis* *Sleep Med Review*; Available at: <https://pubmed.ncbi.nlm.nih.gov/23702220/>

44 Alfonso, P. et al. (2017) *Impact of working hours on sleep and mental health* *Occupational Medicine*; Available at: <https://academic.oup.com/occmed/article/67/5/377/3859790>

45 Kim, J. et al. (2008) Effects of long hours and the night shift on severe sleepiness among workers with 12-hour shift systems for 5 to 7 days in the automobile factories in Korea *Journal of Sleep Research*; Available at: <https://onlinelibrary.wiley.com/doi/10.1111/j.1365-2869.2008.00675.x>

46 Maine Employee Rights Group (2021) *Injuries due to overexertion* Maine Employee Rights Group; Available at: <https://www.maineemployeerights.com/injuries-due-to-overexertion.html>

47 National Safety Council (2021) *Overexertion and bodily reaction* NSC Injury Facts; Available at: <https://injuryfacts.nsc.org/work/safety-topics/overexertion-and-bodily-reaction/>

19% longer to complete the tasks. (48) It is dangerous to allow people who are impaired to that degree, as a result of long work hours, to operate in such hazardous workspaces.

Bringing these together, long work hours are causally linked to impairments in performance and heightening the risk of injury and death in the workplace. A recent detailed study of the effects of working long hours on safety in physical labour (specifically, the mining industry) found that there has been a 3-fold increase in the proportion of injuries occurring more than nine hours into a shift in the last 30 years. The stated reason for this was the industry's move from a standard 8-hour work day to a 10-12-hour work day over this period. The same study also found that accidents occurring at the end of long shifts were also statistically more likely to lead to death and multiple workers being injured. (49) It is highly likely that a similar dynamic is at play in the construction industry, given the normalisation of long work hours and resulting fatigue, overexertion and cognitive impairments in the context of potentially dangerous physical labour.

Beyond the obvious risk of on-site injury, whether that's from a fall, collision, repetitive motion, strain or lifting something heavy, physical labour also degrades the body more generally over time. 42% of UK construction workers suffer from knee pain, while over 60% of industrial workers have to deal with lower back pain. (50)(51) There is widespread acknowledgement that rest days are crucial to allowing the body to maintain peak performance, as evidenced by the recent slew of articles on the necessity of rest days in exercise regimes (mainly for tissue repair), but in occupational settings there is also research positing that reducing work hours can improve physical health. One key study, including over 10,000 participants, found that working longer hours was causally connected to higher physical health hazard. Jobs with overtime have a 61% higher incidence rate, 12-hour shifts increased the risk by 37%, while working 60-hours a week raised the probability of physical damage by 21%. The authors' conclusions were clear: "long working hours are not more risky merely because they are concentrated in inherently hazardous industries or occupations [so] strategies to prevent work injuries should consider changes in scheduling practices." (52) Introducing a four-day week could be an effective way of doing that.

Occupational cancer, largely driven by exposure to asbestos, is a significant issue for construction workers, too. There are around 8,000 work-related cancer deaths and

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48 Proctor, S. P. et al. (1996) Effect of overtime work on cognitive function in automotive workers Scandinavian Journal of Work, Environment and Health; Available at: <https://www.jstor.org/stable/40966520>

49 Friedman, L. S. et al. (2019) Injuries associated with long working hours among employees in the US mining industry: risk factors and adverse outcomes Occupational and Environmental Medicine; Available at: <https://oem.bmj.com/content/76/6/389>

50 O'Reilly, S. C. (2000) *Occupation and knee pain community study* Journal of the Osteoarthritis Research Society International; Available at: <https://core.ac.uk/download/pdf/82306375.pdf>

51 Murtezani, A. et al. (2011) Prevalence and risk factors for low back pain in industrial workers Folia Med; Available at: <https://pubmed.ncbi.nlm.nih.gov/22359986/>

52 Dembe, A. M. et al. (2005) The impact of overtime and long hours on occupational injuries and illnesses: new evidence from the United States Occupational and Environmental Medicine; Available at: <https://oem.bmj.com/content/62/9/588>



13,500 diagnoses per year across all industries in the UK, which equates to 4-5% of all cancer cases. 3,500 of the 8,000 are in the construction industry alone. (53) While making a definitive judgement about the impact of a four-day week on this phenomenon is complex, it is worth noting that the length of time one is exposed to hazardous materials is a key determinant of the risk of developing cancer in later life. As one mesothelioma doctor (cancer of the outer surface of organs, usually linked to asbestos) puts it: “asbestos exposure is cumulative, so short term exposures can add up.” (54) This means that reducing time spent around the substance could have substantial effects on the disease burden.

Long work hours also increase the risk of heart disease and strokes. People working 55 hours a week or more are 17% more likely to die from heart disease compared to those working 35-40 hours a week. Similarly, working at this rate increased the risk of a worker having a stroke by 35%. The same study, commissioned by the World Health Organisation and International Labour Organisation, found that three quarters of a million people die annually around the world as a result of overwork. (55) A more granular study with almost 150,000 participants found that those working more than ten hours for at least 50 days per year were at a 29% increased risk of stroke, while those who had been doing so for at least 10 years were 45% more at risk. (56)

This is particularly acute for those doing physical labour, such as construction. A research project in Korea, which incorporated health, intensity of work, and hours into a detailed ‘overwork index’ found that long times spent labouring resulted in between an 80% and 327% increase in the incidence of cerebrocardiovascular disease. This is a category of illness that relates to narrowing blood vessels, clot formation, blockage and blood vessel rupture that causes strokes, but also aneurisms and vascular malformations. Interestingly for our purposes, the same paper found that reducing work hours in physical occupations from the normal 40-hour work week by just 20% (which would be equivalent to a four-day week) reduced the risk of cerebrocardiovascular disease by just over 20%. (57)

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53 Health and Safety Executive (2019) *Occupational cancer statistics Great Britain, 2020* HSE; Available at: <https://www.hse.gov.uk/statistics/causdis/cancer.pdf>

54 King, D. (2021) Short-term asbestos exposure The Mesothelioma centre; Available at: <https://www.asbestos.com/exposure/short-term/>

55 Pega, F. et al. (2021) *Global, regional, and national burdens of ischemic heart disease and stroke attributable to exposure to long working hours for 194 countries, 2000-2016: A systematic analysis from the WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury* Environment International; Available at: <https://www.sciencedirect.com/science/article/pii/S0160412021002208>

56 Fadel, M. et al. (2019) *Association between reported long working hours and the history of stroke in the CONSTANCES cohort* Stroke; Available at: <https://www.ahajournals.org/doi/10.1161/STROKEAHA.119.025454>

57 Tae-Won, J. et al. (2015) *Overwork and cerebrocardiovascular disease in Korean adult workers* Journal of Occupational Health; Available at: <https://onlinelibrary.wiley.com/doi/epdf/10.1539/joh.14-0086-OA>

In addition to the real pain and suffering experienced by those working in the sector due to unhealthy work demands, physical health resulting from long hours also has a large impact on the sector's profitability, as will be explored in more detail in a later section. The UK Health and Safety Executive estimates that the cost amounts to £1.2bn a year. Of this, illness accounts for £561m and injury some £659m. (58) The cost to the NHS and taxpayer, in the form of incapacity benefit, Universal Credit and other supports, is even higher. Reducing work hours in the sector would reduce these burdens, while also contributing positively to employees' health and extending peoples' lives.

## **MENTAL HEALTH**

Information on mental illness in the construction industry is difficult to interpret initially, but it is undeniably a serious issue to consider. The Health and Safety Executive (HSE) estimates that more than a quarter (26%) of work-related ill health in the construction sector is the result of stress, depression or anxiety. It is worth noting that statistically this is significantly lower than the average for UK industries. Around 1% of construction workers in the country report suffering from these conditions, while the national baseline is around 1.6%. (59) This is welcome news and could partly be explained by the active and often social nature of the work, but rates have been increasing over time. Data suggests that work-related mental health issues in the construction industry have increased by almost 50% since 2004/07. (60) Simultaneously, a 2020 study by the Construction Industry Rehabilitation Plan found that 83% of workers in the sector have experienced 'moderate to severe' mental health issues. (61) Unifying these insights may be helped by understanding the industry's culture of 'toughing it out,' a reluctance to take sick days and a tendency to avoid talking about mental illness, meaning that HSE statistics could be under-representative. Regardless, mental illness is prevalent in the construction industry – another study found that 12-17% of construction workers present signs of mental illness – and, while not the whole picture, it appears to be considerably linked to work hours. (62) There is evidently scope for improvement, and reducing work hours could improve the situation.

There is a vast literature on the impacts of work hours on mental health. Burnout and stress are key factors, which some research has claimed leads to mental illness that leaves workers unable to show up. The year 2019/20 saw an unprecedented 18 million days' worth of work lost across the economy due to mental health issues, up from approximately 13 million days the previous year. (63) A 2017 study in the journal Occupational Medicine found that longer working hours led to a 40% increase in sleep disorders, an 11.5% increase in anxiety and 13.3% increase in depression. (64) A longitudinal study of almost 3,000 Whitehall employees presented even

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58 Health and Safety Executive (2020) Construction statistics in Great Britain, 2020 HSE; Available at: <https://www.hse.gov.uk/statistics/industry/construction.pdf>

59 Ibid.

60 Ibid.

61 BC Building Traders (2020) 83% of construction workers have experienced a mental health issue BC Building Traders; Available at: <https://bcbuildingtrades.org/83-of-construction-workers-have-experienced-a-mental-health-issue/>

62 Barnard, L. (2021) Why are so many construction workers killing themselves? Construction Europe; Available at: <https://www.construction-europe.com/news/why-are-so-many-construction-workers-killing-themselves/8014176.article>

63 Health and Safety Executive (2020) Work-related stress, anxiety or depression statistics Great Britain, 2020 HSE; Available at: <https://www.hse.gov.uk/statistics/causdis/stress.pdf>

64 Alfonso, P. et al. (2017) Impact on working hours on sleep and mental health Occupational Medicine; Available at: <https://academic.oup.com/occmed/article/67/5/377/3859790>

more alarming conclusions. The authors found that working 55 hours a week or more resulted in 1.74-fold increase in anxiety symptoms and a 1.66-fold increase in depressive symptoms. (65) A great deal of other research supports these findings, although to varying degrees, including material stating that working even 46 hours a week can lead to depressive symptoms and a Canadian study which found that women working over just 40 hours had 2.2 times the likelihood of suffering a major depressive episode. (66)(67)

Posttraumatic stress disorder (PTSD) is also a serious psychological risk in the sector, as accidents and injuries at the workplace affect not just the victim but others involved, too, including spectators. A Chinese study following a fatal accident on a construction site found that more than a quarter of workers had PTSD symptoms following the incident. Even after four months the proportion was still high, at 12.9%. The workers also suffered from guilt, depression, insomnia, anxiety and a decreased interest in their work. (68) PTSD can be crippling, attacking the central nervous system and usually results in either a state of hyper-vigilance or dissociated detachment from the world. It can be untreatable, leaving sufferers with potentially lifelong impairments. Reducing the risk of accidents on-site, as outlined above, through reducing work hours would therefore likely lower rates of PTSD.

Substance use is also linked to work hours, and the construction industry is particularly ailed by this. In the US, where statistics are more detailed, the construction industry suffers from the second highest levels of alcohol abuse in the nation, as well as the second highest prevalence of substance use disorders. The sector also has the fifth highest incidence of illicit drug use. Overall 14.3% are addicted to drugs or alcohol. While being a serious problem in and of itself for psychological, physical and behavioural reasons, substance use also leads to accidents such as those outlined above. Alcohol and illicit drugs can similarly lead to dehydration and malnourishment, which is worsened by long work hours and hard physical labour. As outlined in an article published in *Drug Rehab/Recovery Systems*, this may be linked to 'long days that are often filled with repetitive tasks,' as well as a way to 'numb physical pain caused by hours of manual labour.' (69)

Alcohol appears to be the most pervasive issue. A systematic literature review published in the *British Medical Journal* found that excessive work hours increase the likelihood of 'risky' alcohol use by a significant margin (for those working over 48 hours a week) across the economy as a whole. (70) Illegal drug use is also commonly a result of long work hours. Physically demanding manual labour, such as construction work, has also been found to be

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65 Virtanen, M. et al. (2011) *Long working hours and symptoms of anxiety and depression: a 5-year follow-up of the Whitehall II study* *Psychol Med.*; Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3095591/>

66 Glass, J. et al. (1994) *Housework, paid work, and depression among husbands and wives* *J Health Soc Behav.*; Available at: <https://pubmed.ncbi.nlm.nih.gov/8064124/>

67 Shields, M. et al. (2000) *Long working hours and health* *Perspectives on Labour and Income*; Available at: <https://www.proquest.com/openview/df18742b2eb31a27de6ec69dced5f3ee/1?pg-origsite=gscholar&cbl=44493>

68 Hu, B. S. et al. (2000) *Posttraumatic stress disorder in co-workers following exposure to a fatal construction accident in China* *Int J Occup Environ Health*; Available at: <https://pubmed.ncbi.nlm.nih.gov/8064124/>

69 Elkins, C. (2020) *Construction workers and addiction* *Drug Rehab/Advanced Recovery Systems*; Available at: <https://www.drugrehab.com/addiction/construction-workers/>

70 Virtanen, M. et al. (2015) *Long working hours and alcohol use: a systematic review and meta-analysis of published studies and unpublished individual participant data* *British Medical Journal*; Available at: <https://www.bmj.com/content/350/bmj.g7772>



linked to amphetamine use as a way of coping with the demands of the job. (71) Construction workers are also far more likely to use marijuana, opioids, and cocaine. (72) While there hasn't been much research on the causal nature of this, rehab clinics have produced a lot of material on the links between overwork and substance abuse. (73)(74) Drug and alcohol use, as well as stress from a negative work-life balance are also intimately linked to degraded domestic relationships and domestic abuse, itself a leading cause of mental illness. (75)(76) Research stated that the 'high-risk' and 'physically demanding' nature of the work was the most likely driver of alcohol and drug use, both factors that could be improved by reducing hours. (77)

Sleep and fatigue, which has physical as well as psychological consequences is related to work hours too. Numerous studies, particularly from Japan, outline the connection between overwork and depleted energy and rest. (78)(79)(80) The association between such deprivation and psychiatric illness is well established, including for depression, anxiety, psychosis, substance abuse, bipolar disorder and schizophrenia. (81) While sleep problems are often seen as symptomatic of such disorders, it is well understood that sleep deprivation causes or triggers these conditions in the first place. (82) Sleep deprivation and fatigue also make treating such conditions far more difficult.

Finally, the issue of suicide. Construction workers are a shocking three times more

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71 Pedersen, W. et al. (2014) High speed: amphetamine use in the context of conventional culture Deviant Behaviour; Available at: <https://www.tandfonline.com/doi/full/10.1080/01639625.2014.923272>

72 Ompad, D. C. et al. (2019) Construction trade and extraction workers: A population at high risk for drug use in the United States, 2005-2014 Drug and Alcohol Dependence; Available at: <https://www.sciencedirect.com/science/article/abs/pii/S037687161930417X>

73 Smarmore Castle (2021) How stress in the workplace can lead to addiction Smarmore Castle; Available at: <https://smarmore-rehab-clinic.com/help-advice/addiction-workplace/how-stress-in-the-workplace-can-lead-to-addiction>

74 Mayo Clinic (2021) Job burnout: how to spot it and take action Mayo Clinic; Available at: <https://www.mayoclinic.org/healthy-lifestyle/adult-health/in-depth/burnout/art-20046642>

75 Gadd, D. (2019) The dynamics of domestic abuse and drug and alcohol dependency The British Journal of Criminology; Available at: <https://academic.oup.com/bjc/article/59/5/1035/5486457>

76 Kodz, J. et al. (2003) Working long hours: a review of the evidence, Vol. 1 Main Report; Department of Trade and Industry; Available at: [https://www.employment-studies.co.uk/system/files/resources/files/errs16\\_main.pdf](https://www.employment-studies.co.uk/system/files/resources/files/errs16_main.pdf)

77 Ompad, D. C. et al. (2019) Construction trade and extraction workers: A population at high risk for drug use in the United States, 2005-2014 Drug and Alcohol Dependence; Available at: <https://www.sciencedirect.com/science/article/abs/pii/S037687161930417X>

78 Kageyama, T. et al. (2001) Estimated sleep debt and work stress in Japanese white-collar workers Psychiatric Clinical Neuroscience; Available at: <https://pubmed.ncbi.nlm.nih.gov/11422847/>

79 Hayashi, T. et al. (1996) Effect of overtime work on 24-hour ambulatory blood pressure Psychiatric Clin Neurosci; Available at: <https://pubmed.ncbi.nlm.nih.gov/8899576/>

80 Sasaki, T. et al. (1999) Effect of working hours on cardiovascular-autonomic nervous functions in engineers in an electronics manufacturing company Ind Health; Available at: <https://pubmed.ncbi.nlm.nih.gov/10052300/>

81 Krystal, A. D. (2012) Psychiatric disorders and sleep Neurological Clinics; Available at: <https://www.sciencedirect.com/science/article/abs/pii/S073386191200059X?via%3Dihub>

82 Harvard Health Publishing (2021) Sleep and mental health Harvard Medical School; Available at: [https://www.health.harvard.edu/newsletter\\_article/sleep-and-mental-health](https://www.health.harvard.edu/newsletter_article/sleep-and-mental-health)



likely to die by suicide than those working in other sectors. (83) These numbers are rising. The rates are lower for non-manual jobs in construction (5 per 100,000 per year), but the statistics for on-site labourers are very high (73 per 100,000). (84) Research suggests that instability of contracts play a part in this, as does a predominantly masculine ‘suck it up mentality,’ but so do the manifold ramifications of hard labour over long hours. (85) A four-day week could help with all of these.

## ***PRODUCTIVITY AND WORK QUALITY***

A significant number of companies that have introduced a four-day week, some 62%, report notable reductions in absences and sick leave. (86) In the UK in 2019/20, 17.9 million working days were lost due to work-related mental health issues alone (a rise of more than five million on the previous year) and, more specifically in the construction industry the figure for overall days absent as a result of poor health is 2.1 million. 25% of these are related to injury while the remaining 75% are due to illness (mostly stress, depression and anxiety). The changes a four-day week could bring are significant. The most in-depth analysis of how hours affect sick leave came from a Swedish care home, in which they reduced their work time from 8 to 6 hours a day, resulting in a 10% reduction in absences. (87) An equivalent reduction in the construction industry would see 210,000 fewer sick days a year, which translates into approximately £57 million worth of extra labour. (88)

Numerous studies of existing four-day week schemes have demonstrated that productivity increases when hours are reduced, to the extent that more gets done in four days than was previously accomplished in five. As previously mentioned, Microsoft Japan saw a 40% increase in productivity in its offices after the implementation of the scheme, more than enough to make

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**83** Office for National Statistics (2018) Suicides for people in construction and buildings trade occupations, ages 20 to 64 years, England, 2001-2017 ONS; Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/adhocs/009381suicidesforpersonsinconstructionandbuildingtradesoccupationsages20to64yearsengland2001to2017>

**84** Lighthouse Club (2021) Construction suicide rates on the increase Lighthouse Club; Available at: <https://www.lighthouseclub.org/construction-suicide-rates-on-the-increase/>

**85** Barnard, L. (2021) Why are so many construction workers killing themselves? Construction Europe; Available at: <https://www.construction-europe.com/news/why-are-so-many-construction-workers-killing-themselves/8014176.article>

**86** Walker, J. et al. (2019) Four Better or Four Worse: a white paper from Henley business school Henley Business School; Available at: <https://assets.henley.ac.uk/defaultUploads/Journalists-Regatta-2019-White-Paper-FINAL.pdf>

**87** Otlermann, P. (2016) Sweden sees benefits of six-hour working day in trial for care workers The Guardian; Available at: <https://www.theguardian.com/world/2017/jan/04/sweden-sees-benefits-six-hour-working-day-trial-care-workers>

**88** Linear Recruitment (2019) Highest paying construction jobs in the UK Linear Recruitment; Available at: <https://www.linearrecruitment.co.uk/news/highest-paying-construction-jobs-uk>

up for the 20% reduction in time spent at the desk. (89) Perpetual Guardian in New Zealand also saw an increase in productivity, meaning there was no drop in output. (90) In Iceland, the largest trial to date (incorporating more than 1% of the nation's working population), productivity remained stable or improved across the trial workplaces. (91)

In the UK, one quarter of all sick days are linked to workload. (92) Sick leave consistently diminishes in companies that try a four-day week, leading to increased output. UK PR agency Radioactive Public Relations, for instance, saw a 50% reduction in sick days, while Pursuit Marketing, based in Glasgow, reported 'practically zero' staff sickness following its introduction of a four-day week. (93)(94)

It is important to note that these examples, along with the vast majority of trials to date, are not primarily related to physical hard labour. The dynamics resulting in increased productivity in desk jobs when working fewer hours are relatively intuitive – employees speak of picking up the phone instead of emailing, feeling mentally 'sharper' because of rest, and improved wellbeing leading to increased states of 'flow'. For a similar process to play out in the construction industry on-site, one would need to consider other factors, too. Initially it might seem that laying a foundation, operating machinery or cleaning up a site might take as long as it takes, but there are reasonable arguments to be made that improved physical and mental health, more efficient prioritisation and increased concentration and focus resulting from a better work-life balance that a four-day week offers could all have positive impacts on output. These might even counteract or outweigh the reduction in hours.

One of the earliest studies of this, focusing on a prominent German factory in the early 1900s, found that a move from a 9-hour day to an 8-hour day resulted in an overall increase in output. This was found to be primarily due to increased attention and a reduction in fatigue. (95) Industrialist Henry Ford was among the first to institute a five-day week in his factories and saw the same results. Following the introduction of the new work schedule, Ford wrote the book *Why I Favor Five Days' Work with Six Days' Pay* (1926), in which he explained: "Now we know from our experience in

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89 Kelly, J. (2019) Microsoft Japan launched a four-day workweek to much success: is this the key to attracting talent in the tight U.S. job market? *Forbes*; Available at:

<https://www.forbes.com/sites/jackkelly/2019/11/05/microsoft-japan-launched-a-four-day-week-work-to-much-success-is-this-the-answer-to-attract-talent-in-the-tight-us-job-market/?sh=69610deb59ff>

90 Booth, R. (2019) Four-day week: trial finds lower stress and increased productivity *The Guardian*; Available at: <https://www.theguardian.com/money/2019/feb/19/four-day-week-trial-study-finds-lower-stress-but-no-cut-in-output>

91 Haraldsson, G. D. et al. (2021) Going public: Iceland's journey to a shorter working week *Autonomy*; Available at: <https://autonomy.work/portfolio/icelandsww/>

92 Health and Safety Executive (2018) Work-related stress, anxiety and depression statistics in Great Britain, 2017 *HSE*; Available at: <http://www.hse.gov.uk/statistics/causdis/stress.pdf>

93 Patel, A. (2021) A four day week: the pros and cons *Reed*; Available at: <https://www.reed.com/articles/a-four-day-work-week-the-pros-and-cons>

94 McKensie, J. (2020) 'You're better rested and can go harder for four days' – the benefits of working a 4-day week when lockdown ends, according to those already doing it *The Scotsman*; Available at: <https://www.scotsman.com/news/people/youre-better-rested-and-can-go-hard-four-days-benefits-working-4-day-week-when-lockdown-ends-according-those-already-doing-it-2862567>

95 Münsterberg, H. (1913) *Psychology and industrial efficiency* York University; Available at: <http://psychclassics.yorku.ca/Munster/Industrial/chap17.htm>

changing from six to five days and back again that we can get at least as great production in five days as we can in six, and we shall probably get a greater, for the pressure will bring better methods. A full week's wage for a short week's work will pay." (96)

Understandably, there might be a fear in the industry that reducing work hours in construction could simply result in extended deadlines – only producing 80% of a quota in any given week – or even create an additional undue incentive to ‘rush’, which could be dangerous given that 41% of psychological risk factors leading to injury are already related to ‘time pressure’. (97) The evidence, however, suggests that this fear is likely to be unfounded. As outlined above, the positive impacts of reduced work hours on psychological functioning, attention and focus are well documented and relevant for the sector, and the impact on physical labour is similarly positive. In addition to reams of scientific study since the early 20th Century from Taylor’s Scientific Management Theory to Mayo’s Human Relations Theory, overwork has consistently been shown to have resoundingly negative repercussions for output. One construction worker put it well: “productivity drops dramatically after eight hours, but sites frequently work ‘standard’ 12-hour shifts; [they] rarely achieve the outputs they assume, or factor in a reduced output which they pay premium for.’ Similarly, the director of Barhale Holdings plc, Dr Lisa Curran, who has specialist knowledge of occupational medicine, told Construction News recently that ‘I doubt a person would be able to work efficiently for [long shifts], and I would expect their productivity [to be] low.” (98) Oscar Cooper, a construction worker interviewed for this report who owns a small business and currently works a four-day week, made a similar point: “I can work for four days at a higher level than I could for five days. On a five-day week, on a Friday you’re just watching the clock, desperate to go home, trying to chip off early. You’re knackered [...] It’s inefficient and it’s dangerous.”

Contemporary research papers on labour productivity in the construction industry rarely discuss this. The focus is usually broader, specifically referencing the relatively stagnant growth (or even fall, in terms of on-site labour) in output per hour across the industry. (99)(100) Largely this has been put down to issues like changes in supply chains, planning regulation and industry structure. The Chartered Institute of Building completed a more in-depth analysis in 2016 and asked MPs and industry representatives what they thought was most important in terms of increasing productivity and the highest response for both groups was ‘people’ (69% of MPs put this in their top three priorities, while the equivalent figure for industry was 64%). Nonetheless, when broken down further into sub-categories, work hours did not feature. Further, the authors suggested one avenue for compensating for the sector’s lack of productivity by having

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96 Ford, H. (1926) Why I Favor Five Days' Work with Six Days' Pay World's Work; Relevant extract available here: [https://en.wikisource.org/wiki/HENRY\\_FORD:\\_Why\\_I\\_Favor\\_Five\\_Days%27\\_Work\\_With\\_Six\\_Days%27\\_Pay](https://en.wikisource.org/wiki/HENRY_FORD:_Why_I_Favor_Five_Days%27_Work_With_Six_Days%27_Pay)

97 Health and Safety Executive (2020) Construction statistics in Great Britain, 2020 HSE; Available at: <https://www.hse.gov.uk/statistics/industry/construction.pdf>

98 Garner-Perkis, Z. (2018) Workers condemn ‘cancerous culture’ of long hours Construction News; Available at: <https://www.constructionnews.co.uk/news/knowledge-news/workers-condemn-cancerous-culture-of-long-hours-09-08-2018/>

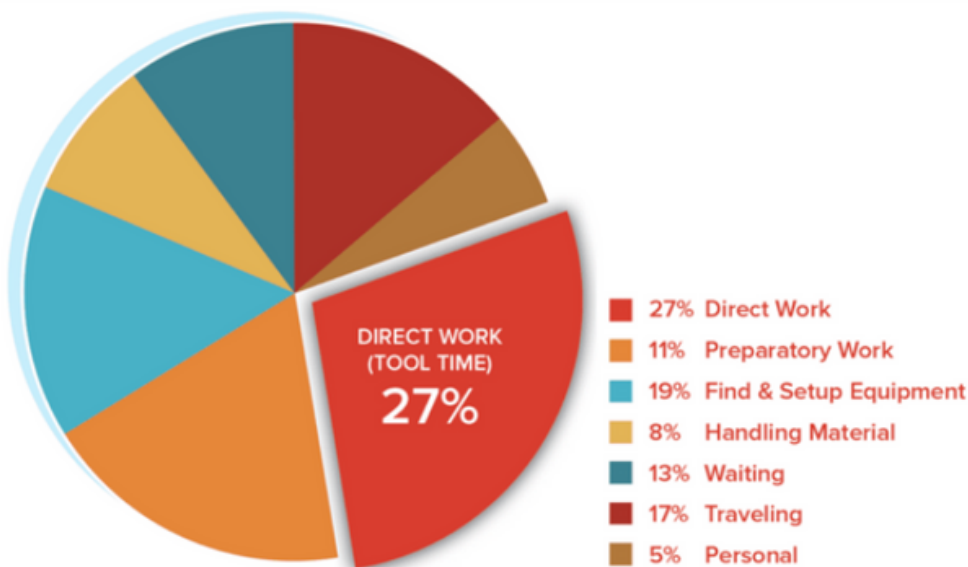
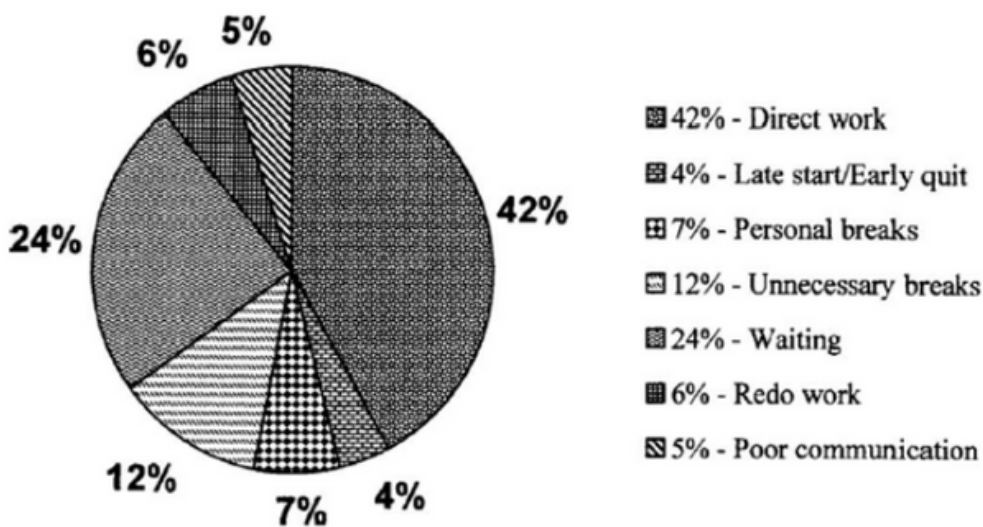
99 Bin Saleem Ahmad, S. et al. (2016) Labour productivity statistics: a reality check for the Norwegian construction industry Norwegian university of sciences and technology; Available at: [http://irep.ntu.ac.uk/id/eprint/34194/1/11658\\_Mazhar.pdf](http://irep.ntu.ac.uk/id/eprint/34194/1/11658_Mazhar.pdf)

100 The Chartered Institute of Building (2016) Productivity in construction: creating a framework for the industry to thrive CIOB; Available at: [https://www.designingbuildings.co.uk/wiki/Productivity\\_in\\_construction:\\_Creating\\_a\\_framework\\_for\\_the\\_industry\\_to\\_thrive#:~:text=The%20new%20report%2C%20Productivity%20in,it%20might%20improve%20its%20own](https://www.designingbuildings.co.uk/wiki/Productivity_in_construction:_Creating_a_framework_for_the_industry_to_thrive#:~:text=The%20new%20report%2C%20Productivity%20in,it%20might%20improve%20its%20own)

its 'workers work longer hours.' (101) It is urgently necessary that the sector seriously consider doing the opposite.

There is a demonstrable fallacy in believing that more hours correspond neatly to more and better labour. Writing in Salon, journalist Sarah Robinson outlines research that shows that increasing work time from 40 to 60 hours a week (a 50% increase) only leads to 25-30% more work actually getting done. People's best work is usually done between the 2nd and 6th hour of work in a day. (102) Overtime thus degrades people physically and psychologically, leads to accidents and injuries, requiring time off, and decreases the quality of work.

Research on productivity in construction is relatively light on the ground, but several in-depth studies do exist. The two charts below show how time is spent on-site, first on a 'typical construction site' and second on an industrial project. There appears to be room here for increases in efficiency, and therefore labour productivity and output. Reducing hours could be crucial here.



101 Ibid.

102 Robinson, S. (2012) Bring back the 40-hour week Salon; Available at: [https://www.salon.com/2012/03/14/bring\\_back\\_the\\_40\\_hour\\_work\\_week/](https://www.salon.com/2012/03/14/bring_back_the_40_hour_work_week/)

**Fig. 1 – Productive and ‘non-productive’ time spent on i) a ‘typical construction project’; and ii) a infrastructure project (i) Rowley; ii) Construction Industry Institute) (103)(104)**

Quality of workmanship also suffers as a result of overwork and fatigue. One factor affecting this is sleep. A compelling recent study found that sleep deprivation negatively impairs reaction times and the control of motor vehicles to a greater degree than having drunk enough alcohol to be over the legal driving limit. (105) During interviews with construction workers for this report, several mentioned that they regularly fall asleep mid-task as soon as they get home. Physical fatigue is just as pernicious. The American College of Occupational and Environmental Medicine states that workplace fatigue leads to “slowed reaction time, reduced vigilance, reduced decision-making ability, poor judgement, distraction during complex tasks and loss of awareness in critical situations.” (106)

Instituting a shorter working week would thus improve labour productivity and increase the quality of work.

## **LABOUR SUPPLY, LONGEVITY AND ACCESS FOR WOMEN**

There is a considerable labour shortage in the construction industry. There are currently 38,000 job vacancies in the sector, up from only 9,000 in 2009 and now higher than at any point in the last 20 years. (107) As demand for construction increases across the UK, with a surge in the building of private housing, major infrastructure projects like HS2 and widespread retrofitting related to the government’s net zero commitments, more workers are desperately needed. The Construction Skills Network recently projected a requirement for 217,000 new construction workers by 2025 just to meet demand. (108) The Office for National Statistics’ latest data set puts employment in construction, nationally, at 1.28 million. (109) This means a growth is required of around 17% in just a few years. This is a serious problem. Even as early as 2018 MPs were warning that the construction industry ‘cannot recruit enough workers’.

In this context it is worth noting that many of the disadvantages of becoming a construction

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**103** Rowley (1998) *Breakdown of productive and nonproductive time on a typical construction project*; cited in [Smith, et al. (2007) *Four-day workweek and the construction industry* Practice Periodical on Structural Design and Construction; Available at: <https://ascelibrary.org/doi/full/10.1061/%28ASCE%291084-0680%282007%2912%3A3%28140%29>]

**104** Construction Industry Institute (2010) RS252-1a – Construction Productivity Research Program – Phase II Construction Industry Institute; Available at: <https://www.construction-institute.org/resources/knowledgebase/knowledge-areas/construction-execution/topics/rt-252/pubs/rs252-1a>

**105** Lowrie, J. et al. (2020) The impact of sleep deprivation and alcohol on driving: a comparative study BMC Public Health; Available at: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-020-09095-5>

**106** SafeStart (2021) *A comprehensive guide to overcoming the effects of fatigue in the workplace* SafeStart; Available at: <https://safestart.com/news/a-comprehensive-guide-to-overcoming-the-effects-of-fatigue-in-the-workplace/>

**107** Office for National Statistics (2021) UK job vacancies (thousands) – construction ONS; Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/timeseries/jp9l/lms>

**108** CITB (2021) Britain builds back: construction will need 216,8000 new workers by 2025 to meet demand CITB; Available at: <https://www.citb.co.uk/about-citb/news-events-and-blogs/britain-builds-back-construction-will-need-216-800-new-workers-by-2025-to-meet-demand/>

**109** Office for National Statistics (2021) Construction statistics annual tables ONS; Available at: <https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/datasets/constructionstatisticsannualtables>

worker are related to work hours. The most common reported reason not to work in construction, according to user feedback on Quora (the predominant online social question-and-answer platform) was related to 'time'. One construction worker responding on the site stated "forget about 9-to-5 jobs... there's a specific time to enter the site but no specific time to leave. You may have to work 12 hours a day." Others mentioned physical strain, injuries and accidents, all factors that could be improved by working fewer hours a week. (110) Introducing a four-day week could be a powerful way of attracting additional workers to the industry, at a time when they are sorely needed. (Let's include this in Key findings)

Construction workers also tend to retire or change professions much earlier than in other industries. Brian Brewington, a construction worker and writer described it as follows: "sixty year old laborers are like sixty year old drug dealers, you won't meet a whole lot of either. For one reason or another, they didn't make it." (111) In 2018, the Department for Business, Energy and Industrial Strategy (BEIS) was already warning MPs that early retirement in construction was resulting in a significant gap in the workforce, one that new recruits were unlikely to be sufficient to fill. Fergus Harradence, deputy director of infrastructure and construction at BEIS is on record saying that "there is simply no way, in the level of demographic change that [construction firms] face, that they will be able to recruit the number of workers to maintain the labour-intensive business model." He added: "the level of recruitment in the industry has been significant, but it is not going to compensate for the people leaving. There are simply not enough young people who want to work in construction in the UK." (112) The proportion of over-50s in construction is significantly lower than the national average, with 6.5% of the workforce – approximately 45,000 people – leaving every year after the age of 50. As well as reducing the available number of employees, early retirement results in a loss of expertise and experience, with ramifications for efficiency and work quality. (113)

It is clearly understood why workers are leaving. The chief reported reason, according to one recent survey, is the physical nature of work being too demanding (25%). Other prominent reasons include ill health, whether that means they are unable to work in construction (12%) or unable to work at all (6%) and injury, either being unable to work in construction (3%) or at all (1%). Together, physical demands, ill-health and injury account for 47% of reasons people leave the profession early. Given what has been covered thus far in this report, these numbers shouldn't be surprising. They are nonetheless concerning. Importantly for our purposes, all of these are linked to overwork. When construction workers over the age of 50 were asked what could be changed in order to get them to stay, the three highest responses related to work hours:

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**110** Quora (2019) What are the pros and cons of working in construction? Quora; Available at: <https://www.quora.com/What-are-the-pros-and-cons-of-working-in-construction>

**111** Brewington, B. (2019) The thing about hard labour Start It Up – Medium; Available at: <https://medium.com/swlh/the-thing-about-hard-labor-b5ecbc89a97f>

**112** Construction News (2018) MPs warned construction 'cannot recruit enough workers' Construction News; Available at: <https://www.constructionnews.co.uk/news/knowledge-news/mps-warned-construction-cannot-recruit-enough-workers-13-11-2018/?blocktitle=most-commented&contentid=-1>

**113** Chamberlain Bros Construction LTD (2018) Why older construction workers must be employed Chamberlain Bros Construction LTD; Available at: <https://chamberlainbros.com/2018/11/21/older-construction-workers-employed/>



'reduce working hours' (33%); 'reduce amount of days worked per week' (25%); and 'have flexible working hours' (18%). (114) A four-day week could have incredible potential impact on the over-50s exodus from the construction workforce, something that would be positive for the workers themselves and the future of industry in general.

Another crucial way in which employment numbers could be increased in the sector is by making construction more accessible to women. 99% of on-site construction workers in the UK are male. (115) One of the greatest barriers to women accessing on-site work is a perception that they are not sufficiently fit or strong to carry out the tasks required – particularly lifting and heavy operations. (116) While numerous scientific studies suggest that there is a significant difference in strength between the biological sexes, particularly due to muscle mass, research as early as the 1980s found that much of this can be attributed to lifestyle factors. One paper, which compared male and female athletes, outlined that the difference in strength between the sexes was half that of the wider population. (117) Even if physical fitness were as much of a problem as it is perceived to be, which it is not, women working in construction are therefore likely to be much more able to perform the necessary tasks on site than women in the general population. Research and experience shows that women are just as productive as men on-site. (118) The issue of men being stronger and fitter than women is only relevant for construction at the very extremes. If hours were to be reduced and physical strain less intense as a result, allowing all workers longer to recover and recuperate, then even these minor concerns could become redundant.

Another important way in which a four-day week could help women access the industry is related to unpaid labour (usually in the home) and childcare. On average women perform 60%

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**114** The Construction Industry Training Board (2018) Fuller working lives in construction CITB; Available at: <https://www.citb.co.uk/media/2bylp3yw/fuller-working-lives-in-construction.pdf>

**115** Tawse, H. (2021) Gender diversity in the construction industry is incredibly low! Pennyfarthing; Available at: <https://www.pennyfarthinghomes.co.uk/gender-diversity-construction-industry-incredibly-low/>

**116** Amaratunga, R. D. G. et al. (2006) Construction industry and women: a review of the barriers University of Salford; Available at: [https://usir.salford.ac.uk/id/eprint/9877/1/176\\_Amaratunga\\_RDG\\_et\\_al\\_CONSTRUCTION\\_INDUSTRY\\_AND\\_WOMEN\\_A\\_REVIEW\\_OF\\_BARRIERS\\_3rd\\_SCRISymposium.pdf](https://usir.salford.ac.uk/id/eprint/9877/1/176_Amaratunga_RDG_et_al_CONSTRUCTION_INDUSTRY_AND_WOMEN_A_REVIEW_OF_BARRIERS_3rd_SCRISymposium.pdf)

**117** Bishop, P. et al. (1987) Sex difference in muscular strength in equally trained men and women Ergonomics; Available at: [https://www.researchgate.net/publication/19552903\\_Sex\\_difference\\_in\\_muscular\\_strength\\_in\\_equally-trained\\_men\\_and\\_women](https://www.researchgate.net/publication/19552903_Sex_difference_in_muscular_strength_in_equally-trained_men_and_women)

**118** Wright, T. (2014) The women into construction project: an assessment of a model for increasing women's participation in construction Queen Mary University of London; Available at: <https://www.women-into-construction.org/wp-content/uploads/2017/06/QMUL-The-Women-into-Construction-Project-2014.pdf>



more unpaid work than men and long hours result in an exclusionary culture where it is nigh on impossible for women to participate. (119) Having children is key here. Holly Porter, founder of Chicks With Bricks, an organisation dedicated to supporting women in the sector, stated that construction doesn't facilitate women having children and returning to the workforce, or a good work-life balance in general; it is a "24/7 industry," she says, "it's not an easy industry to be flexible in." (120) This puts women off joining the industry, or leads to a revolving door culture. In *Constructing Masculinity in the Building Trades*, Kate Ness concludes that "the exclusion of women both enables and condemns men to work long hours." (121) Other barriers, such as reported 'toxic masculinity' and sexism on-site and lack of training programs specifically for women are unlikely to be directly affected by shorter working hours, but a four-day week could be a powerful motivator to get more women into the construction workforce.

## **ENVIRONMENT AND NOISE**

Shortening the working week could have a significant positive impact on the environment. The Green Building Council claims that construction accounts for 10% of UK carbon emissions, while worldwide that figure is a massive 38% according to the UN Environment Program. (122)(123) As with other industries, increases in efficiency could potentially mean a lower total material throughput and reduced energy usage. A report by the 4 Day Week Campaign and environmental organisation Platform London released earlier this year calculated that a four-day week could reduce carbon emissions by 21.3% in the UK by 2023. (124) A large part of this is related to commuting. 73.4% of rural Britons commute by car, the urban figure (outside London) is 67.1%, and even in London, where public transport tends to be much better than the rest of the country, that figure is still 29.8%. Less carbon intensive transport due to fewer days commuting would lead to better air quality – which currently results in 64,000 deaths a year in the UK – as well as reduced congestion and noise. Having one fewer day of on-site work would also mean less dust, air pollution and noise.

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**119** Women's Budget Group (2020) Spirals of inequality: how unpaid care is at the heart of gender equalities Commission on a gender-equal economy; Available at: <https://wbg.org.uk/wp-content/uploads/2020/04/Accompanying-paper-FINAL.pdf>

**120** Urquhart, R. (2016) How chicks with bricks finds female solidarity (and humour) in the UK's building industry Archinect; Available at: <https://archinect.com/features/article/149943012/how-chicks-with-bricks-finds-female-solidarity-and-humour-in-the-uk-s-building-industry>

**121** Ness, K. (2012) *Constructing Masculinity in the Building Trades: 'Most Jobs in the Construction Industry Can Be Done by Women'* Gender, Work and Organisation; Available at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1468-0432.2010.00551.x>

**122** National Federation of Builders (2019) *Transforming Construction for a Low Carbon Future* NFB

**123** Neill, P. (2020) Construction Industry accounts for 38% of CO2 emissions Environment Journal; Available at: <https://environmentjournalonline/articles/emissions-from-the-construction-industry-reach-highest-levels/>

**124** Four Day Week Campaign, et al. (2021) *Stop the Clock: The Environmental Benefits of a Shorter Working Week* Four Day Week Campaign & Platform; Available at: [https://6a142ff6-85bd-4a7b-bb3b-476b07b8f08d.usrfiles.com/ugd/6a142f\\_5061c06b240e4776bf31dfac2543746b.pdf](https://6a142ff6-85bd-4a7b-bb3b-476b07b8f08d.usrfiles.com/ugd/6a142f_5061c06b240e4776bf31dfac2543746b.pdf)

## WELLBEING

A four-day week would very likely improve workers' wellbeing. A poll of employees at the four-day week firm Perpetual Guardian found, for instance, that their self-reported happiness with their work-life balance went up from 54% to 78%. (125) Closer to home, a UK survey from 2019 found that 70% of all workers believed a four-day week would improve their wellbeing, while 78% of employees at existing four-day week firms say they are happier as a result. (126)(127) This has consistently proven to be the case when companies trial the idea. The links between a four-day week and wellbeing are explored in detail in chapter 6 of our 2019 report *The Shorter Working Week: A Radical and Pragmatic Proposal*. (128) One employee at Target Publishing, a UK-based four-day week company, told us that "not only has [a four-day week] improved my quality of life and helped me to achieve a really healthy work/life balance, productivity hasn't been affected, if anything, it has gone up, and in many ways, it has taught me to work smarter, with better time management." Another stated "a four-day week makes a qualitative difference to peoples lives in a way that simply increasing wages alone can't."

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**125** Booth, R. (2019) Four-day week: trial finds lower stress and increased productivity The Guardian; Available at: <https://www.theguardian.com/money/2019/feb/19/four-day-week-trial-study-finds-lower-stress-but-no-cut-in-output>

**126** Walker, J. et al. (2019) Four Better or Four Worse: a white paper from Henley business school Henley Business School; Available at: <https://assets.henley.ac.uk/defaultUploads/Journalists-Regatta-2019-White-Paper-FINAL.pdf?>

**127** Walker, J. et al. (2019) Four Better or Four Worse: a white paper from Henley business school Henley Business School; Available at: <https://assets.henley.ac.uk/defaultUploads/Journalists-Regatta-2019-White-Paper-FINAL.pdf?>

**128** Stronge, W. et al. (2019) *The Shorter Working Week: A Radical and Pragmatic Proposal* Autonomy; Available at: [https://434c74b4-116e-43a0-ab00-04a130c61444.filesusr.com/ugd/6a142f\\_36162778914a46b3a00dcd466562fce7.pdf](https://434c74b4-116e-43a0-ab00-04a130c61444.filesusr.com/ugd/6a142f_36162778914a46b3a00dcd466562fce7.pdf)

## FEASIBILITY

Most research on the four-day week to date has focused on jobs involving employees who are contracted to work a standard 9-5, 5-day week. By contrast, 53% of construction workers are self-employed, agency or zero-hours contractors who, as we covered in the previous section, often work intensively on a project-by-project basis, regularly working 50-60 hours a day, sometimes six days a week. (129) In more extreme cases, workers have reported working 80-hour weeks and occasionally up to 18-hour days. (130) Implementing a four-day week in this context may not be as simple as just saying that workers no longer need to come in on Friday.

Many have called into question the potential inequalities of introducing a four-day week nationwide because while knowledge workers can more easily be paid according to output and productivity, manual and flexible workers are often paid for their time ('duration' rather than 'work'). In the extreme case, although it isn't that uncommon, some people are paid for being present in-situ for a certain period of time and it would be impossible for them to do this 'more productively' in a shorter amount of time – think shopkeepers, drivers, air stewards, bouncers, waiters, teachers, etc. Some might argue that all physical labour falls into the same category. We would argue otherwise.

As outlined in the previous section, the positive impacts of reducing hours still apply in the construction context, perhaps more so than is conventionally recognised given the extent to which construction workers currently push themselves, or are pushed by their employers, with such intensity. Therefore, the question is largely one of structuring changes in work hours to optimise the effects. One contemporary example is Orocco, a high-end building and renovations company based in Scotland, which moved to a four-day week earlier this year. (131) They are reportedly the only construction company in the UK to do so. Orocco have chosen to compress hours, however, giving its workers Fridays off but requiring them to fulfil the same number of hours per week. The company did so after consultations with their staff and hoped that it would raise productivity, lead to a better work-life balance, reduce stress and give staff more opportunities to spend time with friends and family. As stated by the company in response to questions for this report, "the shorter working week gives our staff three days to recuperate and they come back to work feeling invigorated and refreshed. It has increased efficiency and productivity and our projects and workflows are more streamlined."

However, simply compressing hours could have drawbacks. Putting in the same number of hours in heavy physical labour on-site could even worsen employee health and increase the risk of accident and injury. As previously covered, rest is important for

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**129** Barnard, L. (2021) Why are so many construction workers killing themselves Construction Europe; Available at: <https://www.construction-europe.com/news/why-are-so-many-construction-workers-killing-themselves/8014176.article>

**130** Alderson, L. (2018) Dangerously tired: what fatigue is doing to the industry Construction News; Available at: <https://www.constructionnews.co.uk/special-reports/dangerously-tired-what-fatigue-is-doing-to-the-industry-09-08-2018/>

**131** Orocco (2021) Orocco moves to a four-day week Orocco; Available at: <https://orocco.co.uk/orocco-moves-to-four-day-week/>

physical and mental health and working longer hours in a single stretch can increase fatigue, damage attention and mental acuity. Accidents that happen at the end of long shifts are also more likely to hurt a larger number of people and lead to death. (132) That said, Orroco has not reported such a change. In fact, they have noticed “a reduction in sickness absences” and “improve[d] mental health and general wellbeing.”

Interestingly, compressing hours has been the way to go for several firms in other sectors. One UK-based care-provider, Community Integrated Care, recently chose to give its 300+ staff the opportunity to work their normal hours in a four-day week. Following a trial, the company found an increase in productivity and 82% of employees surveyed felt positive about the move. (133) Speaking to the Four-Day Week Campaign, the manager in charge of implementing the shift said that they have effectively reduced hours, because staff have historically ended up doing long shifts beyond their normal contracts and that is now impossible to do on Fridays. It has effectively meant people working for less time, and getting paid more for their labour, while output has remained steady or increased. So, they have reduced hours, but not to 32-hours (the equivalent of a 4-day 8hr day). They argue it’s not possible to do so because, they believe, ‘the work simply wouldn’t get done.’ The extent to which this might apply to construction is yet to be tested.”

While there are currently no perfect examples of construction companies that accurately align with the Four Day Week Campaign’s Gold Accreditation (a 32 hour [or less] four-day week, with no loss of pay), there are some companies in similar sectors that are trialling this with good results. Foresso, for instance, a panel manufacturer based in Birmingham, instituted a four-day week over the course of the Covid-19 pandemic. The company’s staff work 35-hour weeks over four days, while receiving the same pay (although they do come in one Friday a month for a deep clean of the workshop). Notably, production has not gone down over this period. If anything it has increased, although as Foresso’s creative director Conor Taylor told us, the company has ‘been working hard on the structure of the business so it is very hard to say’ what has had ‘the greatest influence’. Nonetheless, sick days, late arrivals and unexplained absences have gone down, there have been fewer management interventions for HR reasons and it has made the company a ‘very desirable employer’. Taylor expanded on this: ‘most manufacturing jobs have horrible schedules and are very bad for employees. Split shift, night shifts, constantly changing schedules, zero hours, agency work, etc. has led to a very toxic working culture [...] it’s very easy for [employees] to get trapped in a cycle of boom/bust in this culture.’ A regular, four-day week changes that, adds security and allows more breathing room.

This could easily translate to construction. However, and this would also apply to construction, Foresso’s office is not yet working a four-day week (although they plan to make this shift soon), meaning that coordinating between employees on the shopfloor and in desk jobs can be challenging. There are also occasionally problems with deliveries and collections on a Friday, meaning that somebody must come in. Construction projects that are working fewer hours

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**132** Friedman, L. S. et al. (2019) Injuries associated with long working hours among employees in the US mining industry: risk factors and adverse outcomes *Occupational and Environmental Medicine*; Available at: <https://oem.bmj.com/content/76/6/389>

**133** Albert, A. (2021) Care provider introduces four-day week to boost productivity *Care Home*; Available at: <https://www.carehome.co.uk/news/article.cfm/id/1654861/Care-provider-introduces-four-day-week>

would have to make similar case-by-case exceptions to accommodate other businesses they needed to collaborate with.

On the stickier question of introducing a four-day week, or something like it, into project work, one solution may be to simply reduce hours by 20%, given the flexible nature of scheduling. Work will need to be done on how such a scheme might be accredited. (134) This could potentially be achieved by reducing the hours worked per day, or by working one day fewer per week. There are complications and risks, here, however. It could be counterproductive, and potentially even detrimental to workers, to reduce the number of days on site but, if left to a reactive, improvisation decision-making process, correspondingly increase hours per day when deemed 'necessary'. A similar system was recently proposed for some NHS workers in UK hospitals, meaning that employees have ended up working similar hours but over fewer days. In some cases this has led to loss of pay as overtime is scrapped. As stated above, this could also lead to increased health concerns, reduced productivity and accidents and injury.

If a four-day week is to work, to truly see the manifold benefits of reduced work hours, estimates would have to be made and rules drawn up about how much workers are expected to work (stated in hours) and what will happen should they be required to labour for longer periods 'in special circumstances'. This must not become a reform that further disempowers workers by stealth. Workers must be consulted prior to the implementation of any scheme and legal contracts drawn up to reflect what they and their employers agree. Work hours must be explicit in any contracts drawn up for a trial, along with stipulations about avoiding reductions in pay and how to manage overtime.

The involvement of unions will be crucial, here. Unions have been instrumental in winning fairer hours for workers over centuries, for abolishing child labour in the industrial revolution, instituting legal retirement ages and making sick pay and holiday pay the norm, to introducing the eight-hour day, inventing the weekend and getting governments across the world to implement maximum work hours and agreements on overtime. Unions must play a similar role in bringing about a four-day week. Many are already calling for one. Frances O'Grady, General Secretary of the Trades Union Congress (TUC), for instance, called for a four-day week in 2018. Addressing the TUC's annual congress, she said: "we can win a four-day working week, with decent pay for everyone. Let's take back control of working time. Ban zero hours, win two-way flexibility and end exploitation, once and for all." (135) At this year's conference (2021) the TUC passed a motion committing to campaign for a four-day week. Union mobilisation will help drive this change. Unions must also be involved in any new contract agreements related to changing work time. Even trials should involve union representatives in order to make sure that workers' voices are heard, their pay is not docked as a result of reduced hours, and that any requirements to work beyond agreed hours are, as far as possible, voluntary and compensated accordingly.

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**134** Four Day Week Campaign (2021) *Four Day Work Week Companies* Four Day Week Campaign; Available at: <https://www.4dayweek.co.uk/employers>

**135** Trades Union Congress (2018) TUC General Secretary Speech to Congress 2018 TUC; Available at: <https://www.tuc.org.uk/speeches/tuc-general-secretary-speech-congress-2018>

As well as being overwhelmingly popular with the general public, many business owners are in favour of trying a four-day week. This is important for the construction sector as very few labourers have the power to institute such a change themselves. A YouGov poll from 2019 found that 64% of businesses 'support [their] business adopting a four day week', a figure that rose to 73% for businesses with over 500 employees. (136) A more recent poll in 2020 found that 79% of business leaders were open to the idea, with only 9% 'not open at all'. (137) These figures are encouraging. The next step is to implement trials to stress-test the concept and assess whether or not fears around productivity, in particular, are well-founded.

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**136** Ibbeston, C. (2019) Do employers support a four day working week YouGov; Available at: <https://yougov.co.uk/topics/finance/articles-reports/2019/09/23/business-backs-four-day-working-week>

**137** Kersley, A. (2020) 79% of business leaders open to four-day working week, new poll shows Labour List; Available at: <https://labourlist.org/2020/09/79-of-business-leaders-open-to-four-day-working-week-new-poll-shows/>

## IMPLEMENTATION

There are a number of stages for implementation of a four-day week in the construction sector. First, four-day week trials need to be announced. Currently there is only one known construction company in the UK that has implemented a four-day week, and even they are running a compressed hours scheme (Orroco staff work four 10hr days a week). More trials are necessary in order to i) determine the extent to which the potential benefits of reduced work hours in construction materialise in real-world scenarios; and ii) build momentum for the idea, and confidence across the industry. Following trials and associated studies and analysis of their merits and drawbacks, the next stage would be to build a coalition of supporters for the idea.

This would need to include employers, some major construction companies, employees (perhaps organised through unions), civil society organisations (including those working on health and safety, worker's rights, women's access, mental health and others), as well as, eventually, politicians. Trials will be fundamental for establishing, first, whether a four-day week is desirable and feasible on the ground and, second, which particular variation of the idea is likely to be most effective in different contexts.

It is important, in the context of the construction industry, that the time-period over which these trials are tested be considered. Some of the key indicators we are interested in – such as accident rates, physical injury and mental health – either occur relatively infrequently or play out over an extended amount of time. As such, trials should be as long as possible. We would recommend 1-2 years. Conventionally four-day week trials have run for much shorter stretches. There are important considerations here that might make implementation difficult. Most importantly, the construction industry is a high-turnover sector (in terms of workforce) and running a long-term trial may be counter-productive as a project could end and teams could disband and regroup, with entirely different individuals on-site. One option could be to find a long-term project, perhaps one that is in the public eye, like the construction of an offshore windfarm like Triton Knoll in the North Sea, which is set to begin in 2022 and includes 164 turbines set to power 800,000 homes. Another option could be a large infrastructure project such as HS2, which is set to be under construction until 2031. Finding a stable team working on the retrofitting of housing or housebuilding could work to a similar extent. The key here would be retaining the same study participants, as much as possible.

Those conducting trials should also consider having some sort of control group. In real-world on-site experimentation it is exceedingly difficult to have a reliable counterfactual, but two similar project could be found, prior to work starting, and have one trial a four-day week and another retain existing work time structures and commitments. Failing a long-term project, this could be done on a project-by-project basis, with one job committing to working a four-day week for the duration of the contract. Ideally we would see a proliferation of such experiments across different kinds of labour and different kinds of contractor.

Finally, trials are not only necessary to assess the validity of the claims laid out above, but also to ascertain the right balance of hours in terms of productivity.

If construction firms are concerned about output levels and overall delivery with a four-day week, perhaps a variety of models need to be investigated. Some trials could investigate the 'gold standard' 32-hour model, while others could look at instituting 35-hour schedules, compressed hours schemes, and the relative merits of spreading this over 4-days versus 5. We believe, given the potential for considerable advantages across the sector, rippling out into the rest of the economy, manifesting in lower costs for the NHS, increased employment, and larger output on key strategic goals including green infrastructure, transport and housing, there is a strong argument to suggest that the UK Government subsidise any initial shortfall taken on by construction companies willing to trial the idea.

It seems clear from our research that a four-day week has the potential to radically transform the construction industry for the better. Construction workers are overworked to near breaking-point. Not only could a four-day week improve employee mental and physical health, reduce accidents, injuries and fatalities and create a better work-life balance, culture and encourage the growth of labour supply in the sector, it could also even improve the quality of workmanship, while retaining consistent levels of output, if not improve them. The fears around implementation from employers are significant, but we can't know how substantiated they are without trials. By the same token, we will never know the true extent of the transformative promise of a four-day week unless we try. As Ralph Waldo Emerson once put it: "don't be too timid [...] about your actions. All life is an experiment. The more experiments you make the better." (138)

One important catalyst for change would be government support. Governments in Spain and, more recently, Scotland have committed themselves to trialling a four-day week. Crucially, both nations have put in place schemes to ensure that companies who are involved in such experimentation will not lose money, largely through subsidies and paying wages for the fifth day. As laid out in consecutive reports by the think-tank Autonomy, these subsidies could be phased out over time, and any introduction of a four-day week should be financially supported as 'firms in some industries could experience cashflow problems if a four day week was implemented too quickly.' (139)(140) Autonomy recommends gradually tapering government support from 100% of the 5th day's wage in the first year, down to 20% in the fifth year and eventually zero. This would grant companies a chance to acclimatise to new conditions, while giving reduced working hours a real chance to work. The authors also recommend founding 'shorter working time committees', made up of MPs, industry leaders, trade union representatives and others, in order to drive the policy forward. Another think tank working in this space, the Institute for Public Policy Research (IPPR), has made similar recommendations. In their recent publication on a four-day week in Scotland, they also propose that the government focus on "greater enforcement of existing employment laws – particularly when it comes to unpaid overtime," in addition to "the urgent introduction of new legislation to replace the European Working Time Directive." (141) They also recommend a new 'Working Time

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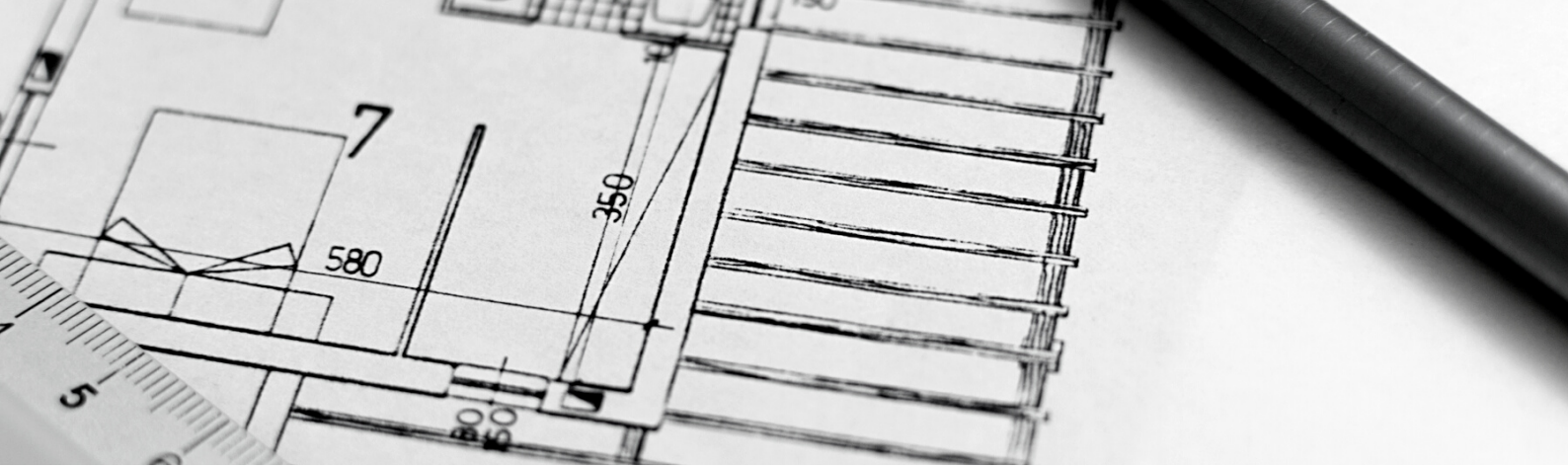
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Commission', based on the existing Low Pay Commission. This idea is distinct from but similar in scope to Autonomy's proposed 'Shorter Working Time Committees'. These ideas are worth pursuing.

Momentum is building for a four-day week. There is widespread popular support and evidence continues to build that a reduction in working hours with no loss in pay could have many significant positive outcomes. Systematically introducing the idea in the UK construction industry would be ambitious, transformative and world leading. Experimenting with a four-day week in the sector could, if successful, be an unprecedented intervention with far-reaching ramifications. Those working in construction stand to gain a great deal from such an effort.

To list just a few of the key issues: accidents, injuries and fatalities are unacceptably high in construction; mental and physical health are seriously worsened by overwork; addiction is prevalent; and suicide is common. Reducing work hours would almost definitely help with all of this. A four-day week could also make construction sites more accessible to women, extend average retirement age and make working in construction more attractive to potential new employees – all key opportunities for an industry suffering from an overwhelming under-supply of labour. Construction firms that are worried about cost, output and productivity may very well find that reducing work hours can actually increase the quality and quantity of work produced. We cannot know the true extent of this, nor what the 'sweet spot' is for the industry, unless we trial it.

Finally, so far the idea of the four-day week, while gathering much well-deserved attention around the world, has primarily been applied in earnest in the context of office jobs. If this ambitious proposal is to be truly emancipatory, re-appropriating time while retaining economic security, then it is fundamental that those in industries such as construction are included in the transition to a shorter working week. As such, we hope this report has made the case for both the desirability and feasibility of trials, leading to widespread introduction across the sector. This can be a way to ensure everyone in the economy benefits, not just white-collar workers, and to build inclusivity, accessibility and fairness into the DNA of a radical and transformative idea whose time may well have come.