HEADLINES

This report shows how the intensity with which people work while doing their jobs has changed in recent years.

- The work intensity required in British workplaces continued to increase slowly between 2012 and 2017. Most notably, the proportion of workers in jobs where it was required to work at ‘very high speed’ for most or all of the time rose by 4 percentage points to 31 percent in 2017.
- Discretionary work effort has declined since 2012. Among private sector workers, though not among public sector workers, the proportion who report that they put in a lot of effort beyond what the job required underwent a distinct fall – by 7 percentage points – to 63 percent in 2017.
- Teachers and nurses are two professional groups that have experienced especially high levels of required work intensification. By 2017, a remarkable 92 percent of teachers strongly agreed that their job requires them to work very hard, up from 82 percent in 2012. Nine out of ten teachers, and nearly three quarters of nurses report that they often or always come home from work exhausted. Both groups are required to devote a much higher work effort than either other professional groups or the rest of the workforce.
- The proportion of women working in ‘high strain’ jobs, combining very high work effort with low task discretion and therefore creating an elevated risk of workplace stress, rose by 5 percentage points between 2012 and 2017, to 20 percent.

The Skills and Employment Survey 2017 is funded jointly by the Economic and Social Research Council, Cardiff University and the Department for Education with funding from the Welsh Government to boost the sample in Wales (ES/P005292/1). The project is hosted by Cardiff University and is directed by Alan Felstead (Cardiff University and Visiting Professor at the UCL Institute of Education) in collaboration with Duncan Gallie at the University of Oxford, Francis Green at the ESRC Centre for Learning and Life Chances in Knowledge Economies and Societies (LLAKES), UCL Institute of Education and Golo Henseke (also at LLAKES).
1. The Problem of High Work Intensity

More than half a million workers in Britain suffer from workplace stress, according to official figures. The single largest cause is high workload, with the consequence that workers are continually having to meet tight deadlines, operate at high speeds, or just generally work intensively with few breaks. ‘Work intensity’ or ‘work effort’ are equivalent terms, used here to mean the effort – whether physical or mental – that workers put into their jobs in a given number of hours. While it can be rewarding to work hard, and it is important for their employers that they do so, a higher work intensity is generally associated with lower well-being for employees. When the workload becomes excessive, working days are lost to ill-health – in total across the country at a rate of 12½ million days every year. Workplace stress is found in all industries but is most prevalent among public service workers. Teachers, for example, now experience twice the average rate of workplace stress. The rate at which teachers are quitting has been increasing, and excessive workload is the most common reason that teachers give for leaving the profession entirely. When workload is raised excessively employers may benefit in the short term, but costs rise in the long term as sickness absence and labour turnover increase.

2. Previous Evidence on Work Intensity in Britain

‘Work intensification’ refers to work intensity increasing. The early 1990s was a period of significant work intensification in Britain; subsequently, after almost a decade during which all measures of work intensity remained much the same, there were indications of a renewed, moderate work intensification between 2006 and 2012, especially for women working full-time. The most recent evidence from the European Working Conditions Survey shows that, between 2010 and 2015, there were modest but significant increases in the proportion of workers reporting that their job involved working at very high speed all or most of the time.

To put this intermittent work intensification in context, working hours, including paid and unpaid overtime, were falling in Britain from the mid-1990s onwards, reaching their lowest-ever point in 2009; with fewer jobs requiring more than 48 hours per week, this will have eased the pressures on workers’ health till then. But it is not just the length of time that matters. If the physical, mental and emotional intensity of work becomes too high, the health of workers can be impaired. It is also relevant that real wages began falling in Britain at or shortly before the Great Recession of 2008-9, as wage rises failed to keep up with inflation. For some, the stresses of the workplace add to the financially-induced stresses that stem from having too low wages to meet one’s bills.

There are two main scientific explanations as to why work intensification has been occurring in Britain. First, new technologies have made it increasingly easy to schedule and fill up the working day with tasks, and indeed to reach people even after they have officially left work using e-mails and mobile phones. Automated scheduling means that there are fewer gaps during the day with employees resting. Second, workers have been obliged to deal with increasing workflows, not least in public sector industries where the work to be done has expanded but not been matched by additional staffing. To cope with the increased throughput of work, workers have had to work harder and faster.

Those with high work intensity more commonly report being exhausted by their work. That high work intensity is a significant source of workplace stress is now well-established; it is also found most likely to lead to worker stress in situations where employees have little choice in their job tasks. The combination of hard work and low discretion is often referred to as a ‘high strain’ work environment.

The problem of highly stressful workplaces in Britain has been known for some considerable time, during which knowledge has been acquired and disseminated about how to modify workplace organisations, use new technologies wisely, and mitigate the effects of stress; the implications for workplace productivity and national health have been pointed out before. In this report we ask whether work intensification has ceased, reversed or continued in British workplaces, and whether there is any sign of a reduction in the prevalence of high strain workplaces.

3. The Skills and Employment Survey 2017

The measurement of work intensification requires an especially careful approach. Research tells us that it is not sufficient to measure people’s perceptions about whether they are working harder, or less hard, than at an earlier time; unfortunately, memories can be especially deceptive about this. Moreover, intensive work can manifest itself in different ways in different jobs. Rather, the best scientific measurement approach captures multiple facets of intensive working, and compares those facets over successive representative cross-sections of the population.

The Skills and Employment Survey 2017 (SES2017) collected data from working adults aged 20-65 years old in England, Wales and Scotland who were interviewed in their own homes in 2017. The sample was drawn using random probability principles subject to stratification based on a number of socio-economic indicators. Only one eligible respondent per address was randomly selected for interview, and 50% of those selected completed the survey. Data collection was directed by ourselves and conducted by GfK.
SES2017 is the seventh in a series of nationally representative sample surveys of individuals in employment aged 20-60 years old (although the 2006, 2012 and 2017 surveys additionally sampled those aged 61-65). The numbers of respondents were: 4,047 in the 1986 survey; 3,855 in 1992; 2,467 in 1997; 4,470 in 2001; 7,787 in 2006; 3,200 in 2012; and 3,306 in 2017. For each survey, weights were computed to take into account the differential probabilities of sample selection, the over-sampling of certain areas and some small response rate variations between groups (defined by sex, age and occupation). All of the analyses that follow use these weights. For more information on the series see Felstead, A, Gallie, D and Green, F (2015) (eds) Unequal Britain at Work, Oxford: Oxford University Press.

4. Indicators of Work Intensity, ‘High Strain’ and ‘Exhaustion’

To measure work intensity we focus mainly on what a job requires from the worker. We measure three facets of this. First, we use responses to the question: ‘please tell me how much you agree or disagree with the statement: my job requires that I work very hard’. If they strongly agreed, we classify the job as involving Very Hard Work. Next, respondents were asked to indicate how often they worked at very high speeds. If they said that they did so for ‘all the time’ or ‘almost all the time’, we classify their job as one requiring Very High Speed. Third, respondents were asked how often their work involved working to tight deadlines. If they replied ‘all the time’ or ‘almost all the time’, we classify their job as one requiring Tight Deadlines.

We also included a measure of discretionary effort. Respondents were asked ‘how much effort they put into their job beyond what is required’. Those who replied ‘a lot’ (the alternatives being ‘some’ or ‘only a little’) were then classified as workers giving High Discretionary Effort.

SES2017 also measures four aspects of the amount of discretion workers have over the tasks they perform in their jobs. We created a scale of Task Discretion, ranging from 0 to 3, with mean 2.27 when all years from 1992 onwards are pooled – see our other report Participation at Work in Britain. We then classified a High Strain Job, as one which involved ‘Very Hard Work’ and where the level of Task Discretion was below 2.

Finally, SES2017 measures an important potential consequence of high work intensity, namely exhaustion. Workers were asked ‘how often do you come home from work exhausted?’, we classified workers as Exhausted if they replied either ‘Always’ or ‘Often’, the alternatives being ‘sometimes’, ‘hardly ever’ or ‘never’.

5. Findings

Work Intensity

Taking all of Britain’s workplaces as a whole, the average level of work intensity has continued to increase slowly between 2012 and 2017. Most notably, the proportion of workers in Very High Speed jobs rose by 4 percentage points to 31 percent in 2017. The estimates of the other two indicators of work intensity also edged upwards. Though these two increases were modest, there is no sign of any reversal of the previous upward trend. In 2017, 46 percent of the British employed workforce strongly agreed that their jobs required them to work very hard; this compares with some 32 percent back in 1992.

Figure 1: Jobs with High Work Intensity in Britain (%), 1992-2017

Figure 2: Employees delivering High Discretionary Effort in Britain (%), 1992-2017
The long-term, intermittent, growth of work intensity contrasts sharply with the unchanged level of discretionary work effort in Britain until 2012, as shown in Figure 2. Until that point, around seven in ten workers reported in every wave that they put in a lot of effort beyond what the job required. However, among private sector workers, though not among public sector workers, this proportion underwent a distinct fall between 2012 and 2017 – by 7 percentage points – to just 63 percent.

Table 1, which covers all waves of the survey since 2001, shows that there is considerable variation in work intensity among socio-economic groups. High work intensity is more prevalent in full-time than in part-time jobs, and for the self-employed when compared with employees. For example, 52 percent of the self-employed strongly agree that their job requires very hard work, in contrast to only 43 percent of employees.

The variation among groups depends on the measure of work intensity, thus reinforcing the point that hard work may be manifested in different ways in different types of jobs. Thus, whereas some have argued that women are more likely than men to be in jobs requiring high work intensity, the data here show that this is true only for two of our indicators of required work effort; the third – exposure to tight deadlines all or most of the time – is found in 41 percent of women’s jobs, and 47 percent of men’s jobs.

Because of previous evidence about the link between technology and work intensity, we divided the sample into jobs for which the use of a computer was essential (labelled High Computing, and all other jobs (Low Computing). For two out of our three measures of required work effort, High Computing jobs required substantially higher work intensity.

There is also considerable variation across occupations, with managers and professional workers most frequently recording very hard work, tight deadlines and discretionary work effort, while it is those doing elementary occupations who most commonly report working at very high speeds, and personal service workers who most commonly have a high discretionary effort. Most striking among professionals, however, are school teachers who record the highest effort levels on all measures; for example, 83 percent report that their job requires them to work very hard. The work intensity of another large professional group, nurses, is not far behind.

During the last quarter century, the British economy has undergone many changes, with further falls in the proportions involved in manufacturing industries, rises and falls in the proportions of employees working in the public sector, and increases in the proportions of managerial and professional jobs. One could well ask, then, whether this change in the composition of jobs is what lies behind the overall rise in required work effort. However, our tests show that this is not the case: industrial and occupational change have not caused the work intensification.

Table 1: Indicators of High Work Intensity across Socio-Economic Groups (%)

<table>
<thead>
<tr>
<th></th>
<th>Very Hard Work</th>
<th>Very High Speed</th>
<th>Tight Deadlines</th>
<th>High Discretionary Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>42.4</td>
<td>27.0</td>
<td>44.4</td>
<td>69.2</td>
</tr>
<tr>
<td>Female</td>
<td>45.9</td>
<td>29.7</td>
<td>41.1</td>
<td>74.0</td>
</tr>
<tr>
<td>Male</td>
<td>39.4</td>
<td>24.6</td>
<td>47.3</td>
<td>65.0</td>
</tr>
<tr>
<td>Part-time</td>
<td>35.2</td>
<td>25.7</td>
<td>33.8</td>
<td>64.9</td>
</tr>
<tr>
<td>Full-time</td>
<td>44.5</td>
<td>27.3</td>
<td>47.4</td>
<td>70.4</td>
</tr>
<tr>
<td>Employee</td>
<td>42.8</td>
<td>27.5</td>
<td>45.1</td>
<td>67.9</td>
</tr>
<tr>
<td>Self-employed</td>
<td>52.3</td>
<td>26.6</td>
<td>45.8</td>
<td>76.0</td>
</tr>
<tr>
<td>High Computing*</td>
<td>45.9</td>
<td>27.6</td>
<td>49.4</td>
<td>71.1</td>
</tr>
<tr>
<td>Low Computing</td>
<td>39.4</td>
<td>26.4</td>
<td>40.0</td>
<td>67.4</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers</td>
<td>50.3</td>
<td>26.3</td>
<td>52.2</td>
<td>77.7</td>
</tr>
<tr>
<td>Professionals</td>
<td>55.8</td>
<td>26.5</td>
<td>49.0</td>
<td>72.6</td>
</tr>
<tr>
<td>Associate Prof &amp; Tech</td>
<td>45.4</td>
<td>23.3</td>
<td>44.5</td>
<td>69.9</td>
</tr>
<tr>
<td>Admin &amp; Secret</td>
<td>34.3</td>
<td>26.1</td>
<td>40.0</td>
<td>65.1</td>
</tr>
<tr>
<td>Skilled Trades</td>
<td>39.4</td>
<td>27.3</td>
<td>46.4</td>
<td>67.9</td>
</tr>
<tr>
<td>Personal Services</td>
<td>49.5</td>
<td>24.4</td>
<td>31.6</td>
<td>78.5</td>
</tr>
<tr>
<td>Sales</td>
<td>28.1</td>
<td>29.7</td>
<td>31.3</td>
<td>59.9</td>
</tr>
<tr>
<td>Operatives</td>
<td>32.0</td>
<td>27.4</td>
<td>53.0</td>
<td>60.9</td>
</tr>
<tr>
<td>Elementary</td>
<td>32.7</td>
<td>34.1</td>
<td>40.7</td>
<td>61.3</td>
</tr>
<tr>
<td>Teachers**</td>
<td>83.2</td>
<td>39.0</td>
<td>54.9</td>
<td>87.1</td>
</tr>
<tr>
<td>Nurses</td>
<td>64.7</td>
<td>33.5</td>
<td>42.5</td>
<td>78.4</td>
</tr>
</tbody>
</table>

*Jobs where computer use is essential; **state sector only.
Indicators are averaged over all waves from 2001 onwards.
Rather, the changes have been taking place within each sector or group, albeit faster for some than others. Teachers and nurses are two occupations where work intensification has been especially high, according to all three measures of required work effort. For example, 57 percent of nurses reported having to work to tight deadlines ‘almost all’ or ‘all the time’ in 2017, as compared with just 28 percent in 2001. With respect to the Very Hard Work indicator, the work intensification of teachers and nurses is shown in the left hand parts of Figures 4 and 5. In 2017, a remarkable 92 percent of teachers strongly agree that their job requires them to work very hard, up from 82 percent in 2012. Confronted with an additional throughput of patients in wards and children in classrooms (and accompanying paperwork), dedicated nurses and teachers may have had little option other than to work more intensively, if they were to remain in their jobs.

**Consequences**

Persistent very hard work is generally associated with lower well-being, as reported by employees, but the worsening detrimental effects might be countered by either of two factors: if work hours were falling, or if workers were granted high levels of discretion over the tasks they have to perform.

The first of these was a distinct factor for the years following the mid-1990s, as the working week resumed its long-term historical downward trend. The proportion of workers who report coming home from work exhausted depends, among other factors, on working hours, work intensity, and the length and difficulty of commuting. As shown in Figure 3, the proportion fell during the time of falling working hours and stable work intensity – for women, by about five percentage points after 1997. But in recent years, the proportion has risen, and this is linked to the rise in work intensity while working hours have changed little.

The second factor, the worker’s task discretion, has historically moved in the opposite direction. Falls in discretion were recorded during the 1990s, and – as shown in our companion ‘First Findings’ report on the subject – further falls have taken place during 2012 to 2017. The result is that there have been significant increases, for both sexes, in the proportions of High Strain jobs, where job-holders are especially prone to workplace stress. For women, the proportion rose by 5 percentage points between 2012 and 2017, leaving one in five women at an elevated risk of stress. For men, the jump of 4 percentage points, up to 15 percent of jobs, took place between 2006 and 2012.

Both teachers and nurses have experienced dramatic increases in these consequences of work intensification. Nearly nine out of ten teachers report being often or always exhausted after work, up from three quarters in 2006; for nurses, the jump between the 1990s and the present decade is from 25 percent to 73 percent. Nearly four in ten teachers can be classified as in a High Strain job – as compared with 17 percent for all workers.

**Figure 3: Exhausted Workers and High Strain Jobs (%), 1992-2017**

![Exhausted Workers and High Strain Jobs](image)

**Figure 4: Exhausted Teachers and Teachers in High Strain Jobs (%), 1997-2017**

![Exhausted Teachers and Teachers in High Strain Jobs](image)

**Figure 5: Exhausted Nurses and Nurses in High Strain Jobs (%), 1992-2017**

![Exhausted Nurses and Nurses in High Strain Jobs](image)
6. Policy Implications

The sustained, widespread, work intensification of jobs in Britain is a modern safety and well-being issue, potentially inhibiting the ability of many to flourish at work, and becoming a health risk for those who have low control over how they do their jobs. A strong policy implication of these first findings concerns, in particular, the retention of teachers and nurses, which has been an ongoing problem for public service delivery in recent years.

Especially for teachers, there have been reports of increasing workloads – re-confirmed by the high-quality representative data on work intensity shown here – and of high proportions leaving the profession. In addition to the burdens on individuals who suffer from workplace stress and consequent ill-health as a result of excessive workload, government should consider the potential losses for the education service.

While individual schools bear the costs of extra turnover and sickness absence, the government foregoes its investment in teacher training if too many teachers leave as a result of high work strain.

For other jobs, the lessons to be drawn are of two kinds. For employees, it is important to learn to use new technologies to take advantage of the flexibilities offered, rather than allow the technologies to increase their workloads. For employers and managers, if they want to encourage an engaged and committed workforce, it is important to design jobs flexibly, providing adequate support and allowing more participation and task discretion where possible for those they supervise; they should also be encouraged to think and plan long term when tempted by new technologies to maximise their employees’ work intensity.

Further Reading


Reports in the First Findings Series

1. Productivity in Britain: The Workers’ Perspective.
2. Skills Trends at Work in Britain.
3. Fairness at Work in Britain.
4. Work Intensity in Britain.
5. Participation at Work in Britain.
6. Insecurity at Work in Britain.

All titles, along with technical reports, are downloadable free from the survey website at http://www.cardiff.ac.uk/ses2017 (1-3 after 18/7/18; 4-6 after 2/10/18).

Also you may like to take the Job Quality Quiz which is an additional output emanating from the project, www.howgoodismyjob.com

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