

Part-time work and productivity

Authors:

Jill Rubery^x

Work and Equalities Institute

Isabelle Bi-Swinglehurst^x

Work and Equalities Institute

Anthony Rafferty^x

Work and Equalities Institute

Date:

March 2024

The Productivity Institute

Productivity Insights Paper No. 031

*Alliance Manchester Business School and The Productivity Institute

Key words

part-time work, productivity, jobs, gender, equality

Authors' contacts:

jill.rubery@manchester.ac.uk

Copyright

© J. Rubery, I. Bi-Swinglehurst, A. Rafferty (2024)

Suggested citation

J. Rubery, I. Bi-Swinglehurst, A. Rafferty (2024) *Part-time work and productivity*, Insights Paper No. 031, The Productivity Institute.

The Productivity Institute is an organisation that works across academia, business and policy to better understand, measure and enable productivity across the UK. It is funded by the Economic and Social Research Council (grant number ES/V002740/1).

The Productivity Institute is headquartered at Alliance Manchester Business School, The University of Manchester, Booth Street West, Manchester, M15 6PB. More information can be found on [The Productivity Institute's website](#). Contact us at theproductivityinstitute@manchester.ac.uk

Abstract

This paper explores the role played by part-time work in the UK's productivity problem. Part-time is the UK's most frequently used form of flexible employment, accounting for 24% of all employees, 75% of whom are women. Sustainable productivity growth requires a focus on the well-being, development, and full potential of individual workers including those who work part-time.

The paper points to two main problems with research on part-time work and productivity.

- First, there are different types of part-time work with different implications for productivity. These range from, at one end of the spectrum, part-time jobs designed mainly to retain higher skilled staff to, at the other end, part-time jobs used to target paid labour hours to variable demand. In the middle of the spectrum are more regular part-time jobs with more stable hours though offering low pay and limited career prospects.
- The second problem is that productivity effects have been mainly assessed at the firm or workplace level but without reference to whether part-time work is a help or hindrance to leading productive lives. By productive lives we mean not only the opportunity to learn, develop and utilise skills and talents to the full, but also opportunities to avoid work contexts that may cause stress and ill-health.

1. Introduction

Part-time jobs are held by just under a quarter (24.1%) of all employees in the UK and account for 13.6% of the volume of paid employee hours.¹ Women constitute the great majority accounting for more than three out of four (75.1%) part-time workers (ONS, 2023). It is therefore appropriate to consider what role part-time work may be playing in the productivity debates in the UK. Most considerations of part-time work and productivity in the literature approach this issue from two perspectives that we wish to challenge as insufficient and potentially misleading. First, part-time work is assumed to represent one type of work, at most differentiated by gender and sometimes by short to long part-time work, that is expected to have some productivity effects. This simple division between part-time and full-time may not capture the increasing diversity of forms of part-time work, as we discuss below, and each form may have different implications for productivity. Second, productivity is mainly assessed through cross-sectional analysis of the impact of part-time work on productivity at the firm or workplace or group level. This provides important potential insights into employer reasons for using or not using part-time work in general or in particular areas. However, the cross-sectional impact on a specific firm may be less important for the long term productivity potential of the UK economy than the impact of part-time work on those undertaking it for their prospects of having productive lives where they can use and be rewarded for their full potential and talents. Solving the UK's long term productivity problem must involve enhancing the productivity of all those with the potential to contribute to the economy and avoiding forms of work that may have negative impacts on health and wellbeing. The different forms of part-time work may have very different implications for productive lives as well as for firm-level productivity.

To develop these two challenges to the current state of the art debate on productivity and part-time work, we first of all discuss the evidence for the emergence of stronger divisions within the part-time work form, taking into account how it has developed historically, influenced by employer objectives, changes in labour force composition and labour market regulation. Once we have identified these moves to heterogeneity, we turn to exploring current Labour Force Survey data to identify variations in part-time work by occupational group and by demographic factors. The fourth section then turns to the topic of productivity, first, by looking at the implications of different types of part-time work for productivity at the firm or workplace level and second, by considering the likelihood of those working part-time being able to pursue productive lives. We conclude by some reflections on what could be done to achieve more productive lives for part-time workers.

2. The evolving heterogeneity of part-time work

Part-time work is available as a standard variable in most labour market and social conditions datasets and in assessing its productivity impact, the most common approach as Garnero (2016), an OECD employment specialist, comments, has been 'to approach part-time work as a homogeneous feature' (Garnero, 2016: 8). This in Garnero's view is flawed and potentially accounts for mixed results in attempting to assess whether part-time workers were less productive and underpaid across OECD countries. An alternative approach may be to disaggregate part-time work by, for example, whether it involves long or short hours and by gender but the differences may in fact be more fundamental, related to the primary employer

¹This figure was based on the derived variable total usual hours worked in main job (excluding overtime) per week (variable: *bushr*) in the 2022-23 Labour Force Survey (SN: 9117; ONS, 2023). The value is weighted using population weights. Full-time and part-time employees contribute estimated 957,286,755 million hours per week; 826,985,839 hours by full-time employees; and 130,300,913 hours by part-time employees.

motivation for offering part-time hours. This is not a new idea as, in 1992, Tilly had observed in relation to the United States that in services there are:

two distinct forms of part-time employment. *Retention* part-time jobs, located in primary labor markets, are designed by employers to retain or attract valued workers who prefer to work part time. Employers use *secondary* part-time jobs, located in secondary labor markets, to gain advantages of lower compensation and greater scheduling flexibility (Tilly, 1992: p. 330).

Employers may, of course combine these two approaches: for example, they may seek to retain staff by offering part-time work but, where the employee has limited bargaining power, may also expect the part-time worker to accept variable schedules, insecure contracts or low pay. Another way of categorising types of part-time work is to build on the issue of bargaining power and consider who controls flexibility: for example Fagan (2004) identified three types of flexible work that is: unstructured flexibility (where employer needs dominate and hours and scheduling may vary at the employer's behest); structured flexibility (where the volume of hours is fixed and the schedule is predictable but determined by the employer); and autonomous flexibility (where employee needs dominate).

The form and extent of different types of part-time work will also depend on the labour market regulatory systems and the historical and current conditions for gender equality. Across Europe there are very different experiences of the role of part-time work as a means of integrating women into employment: for example, while part-time work for working mothers plays an even greater role in Germany than the UK, its role is lower, though still significant, in France, increasingly limited in Denmark, low but rising in Spain and very low in Slovenia (Grimshaw et al., 2016). In a comparative study of the spectrum of part-time work across three European countries – UK, France and Germany – (Rubery et al., 2022), the extent and form of highly flexible part-time work was found to be shaped by different systems of gender relations and regulation. For example, in France short hours part-time work was limited by both social norms and a mandatory 24 hours minimum weekly contract, though this could be bypassed for young people and those claiming in-work benefits where very short duration contracts prevailed. These conditions reflected both the labour market regulation system and the fact that women in France had a history of being integrated into the labour market on a full-time basis. Many women who work part-time do so on an involuntary basis, preferring full-time work. In Germany, the flexible jobs mainly took the form of mini jobs that had tax advantages for working mothers linked to its longstanding income tax-splitting system in Germany that supports the male-breadwinner family model. These mini jobs have been declining in usage after Germany introduced a legal minimum wage in 2015. In the UK, flexible work is enabled by the lack of constraints on contractual hours, by cost incentives in the national insurance system for both employers and employees to engage in short hours work and by women's integration into the labour market having relied more on part-time work than in France. In France and Germany, parents have rights to work part-time, while in the UK, there is only a right to request flexible working.

In identifying the development of types of part-time work in the UK it is therefore helpful to draw on and combine knowledge of changing industrial structures, characteristics of the labour regulation system and its intertwined impact on the development of part-time work and of how women were integrated into the labour market in the post second world war period and beyond.

2.1 Types of part-time work: towards heterogeneity

The development of part-time work in the UK in the post-Second World War period was originally focused on providing opportunities for women with children to engage in some wage work. Most left employment after marriage, with some sectors enforcing marriage bans, or after childbirth as there was no maternity leave. Moreover, if mothers sought to return to work, they often had to accept occupational downgrading (Dex and Shaw, 1986). This downgrading occurred through the occupational structure as part-time working hours were not provided in all occupations. Where part-time work was offered, one aim was often to expand the available labour, but it also offered opportunities to employers to reduce costs and/or enhance productivity as part-time workers would frequently be paid below full-timers. They were also used to extend operating hours through, for example, twilight shifts that did not attract overtime payments (Rubery, 1998). These mixed uses of part-time work, where it not only facilitates variable staffing needs and payment of lower wage costs but also attracted some groups into employment, still characterises much of the part-time labour market today.

This mixed type of part-time work we refer to as regular part-time work. However, there have been trends within the part-time labour market that have widened the range of part-time job types, with some jobs at one end of the spectrum becoming more focused on retention for those in career-type jobs and others where the focus is primarily on limiting paid hours of work to exactly match demand, leading to more fragmented and variable hours part-time jobs. Between these two ends of the spectrum are what we term regular part-time jobs where there are some efforts to accommodate the employee's needs but where jobs may still be designed in part to meet employer cost and staffing strategies. To focus on this increasing heterogeneity, we now explore the factors behind the widening of the spectrum of part-time work at both ends.

Variable hours part-time jobs

In variable hours jobs, paid labour hours may be targeted on periods of peak demand only, minimising risk, from the employer perspective, of overstaffing and consequent low work intensity hours of paid work (Supiot, 2001). Although service sector part-time jobs have always been targeted at busy periods, it was not until the Electronic Point of Sale system in retail that sophisticated targeting of what staffing levels were required to meet expected footfall began to become standard practice in some services. In sectors such as retail part-time workers were also favoured for weekend work as they did not receive additional premiums. This paved the way for removal of such premiums for full-timers (Rubery, 1998). Many service jobs were also outsourced to specialist contractors from the public sector and large private sector organisations. This proved particularly advantageous for employers in the years before there was a minimum wage (when the full-time/part-time pay gap was much larger than now) as the contractors could often pay much lower wages than the minimum pay rate within the client organisation. For example, this was an explicit motivation for outsourcing social care jobs from local authorities and the rate of outsourcing accelerated after the social care workers' jobs were upgraded within the local authorities' integrated and gender-sensitive job evaluation scheme that was negotiated in the mid-1990s (Rubery and Urwin, 2011).

These primarily demand-driven changes have also been facilitated by a range of diverse supply-side pressures for flexible work. The continuing uneven division of domestic work, including childcare, still generates a large supply of adult female labour for part-time work, bolstered by the extremely high cost and scarcity of childcare, particularly if required to match demanding full-time work schedules. This supply has been added to by new demographic groups willing or able to work part-time, including the expanding student population and, at the other end of

the lifecycle, older workers who may be seeking either to top up pensions or to reduce their level of activity before they have access to pensions.

There have been further changes in the UK that have served to normalise highly variable part-time work with low guaranteed hours. Working Tax Credits were introduced in the 2000s in the hope of encouraging those claiming benefits to enter low paid and possibly part-time work (Gregg and Wadsworth, 1996) by offering subsidies to low paid breadwinners. Universal Credit that has replaced Working Tax Credits went further and abolished the threshold of 30 guaranteed hours (16 for those with primary care responsibilities) to leave unemployment benefit and claim Working Tax Credits. Now all claiming benefits may be required, if that is all that is available, to take on part-time work whatever the guaranteed hours (even zero hours contracts). They are also expected to seek additional hours or take multiple jobs to move towards the expected 35 hours of work for claimants (except for those with primary care responsibilities).

The UK labour market regulation system provides many incentives and opportunities to use this type of highly variable part-time work as it has no effective regulations with respect to guaranteed hours, no requirement to increase contractual hours in line with actual hours or to pay an overtime premium for extra hours, all three of which apply in France where the premium for additional hours is 10%. (Rubery et al., 2022, 2018). Nor in the UK is there a requirement to compensate for cancelled or curtailed shifts or to give advanced notice of work schedules, though the government felt obliged to accept a private member's bill last year providing rights to request a more predictable work schedule after six months of employment as this followed commitment in the government's 2019 manifesto following the Taylor review of good work (BEIS, 2017).² The UK also subsidises through its national insurance system employers who offer low weekly wages, due to very short hours of work.³ The use of short guaranteed hours of work may deprive these part-timers of access to basic benefits such as sick pay and unemployment benefits,⁴ though pension credits may accrue if they have care of children. The sharp tapering off of Universal Credit payments as household income rises may also incentivise short part-time work for those who are claiming UC on a family basis.

² See page 38 at <https://www.instituteforgovernment.org.uk/sites/default/files/annex-conservative-manifesto-half-time-analysis.pdf> for commitment to 'Ensure that workers have the right to request a more predictable contract and other reasonable protections'.

³ For example, from April 2023 to April 2024, employers do not pay any national insurance on earnings up to £175 which is equivalent to around 17 hours at the adult minimum wage. Consequently, if a 35 hour full-time job is divided into two 17.5 hour jobs almost no national insurance is paid.

⁴ The threshold for employees being excluded from contributions that would count towards eligibility for sick pay or unemployment benefits was £123 per week in 2023-4, that is equivalent to just under 12 hours a week at the adult minimum wage.

Retention-type part-time work

Retention-type part-time work has been supported by regulatory changes and by normative changes in favour of women being able to pursue non interrupted careers. The regulatory changes include more universal and paid maternity leave, rights to request flexible working, and more recently some free or subsidised childcare hours for children over three years old, due to be expanded also for younger children. At the same time there has been increased feminisation of many higher-level jobs requiring, for example, graduate qualifications, now that women now account for over half (57% in 2022/23) of higher education students.⁵ These changes have put retention of their skilled and often female workforce on the employers' agenda. However, it was not until 2003 that a right to request part-time hours was introduced. This right has reduced the tendency for women after childbirth to change employers and downgrade their occupation (Connolly and Gregory, 2008), so that part-time work has spread to a wider range of occupations and sectors where the main motivation is retention of staff with appropriate and often firm-specific skills. However, as we will explore further below, evidence suggests that part-time work, even when used for retention may still not lead to full integration with full-time workers. Women in the UK face a range of pressures to take part-time work in preference to full-time work when they have significant care responsibilities: first, childcare costs are very high (OECD, 2022); and second, higher level full-time jobs have become associated with long working hours and constant availability (the 'always on' culture) (Rubery et al., 2005). Not only are these jobs difficult for mothers to take on, due to continued expectations that they are the main carer, but this becomes close to impossible if their partner is in this type of job and has unpredictable and long working hours. These types of jobs, called 'greedy' jobs by Goldin (2021), the 2023 Nobel laureate in economics, reinforce a demand for part-time hours. In the UK, there is no maximum to working hours, due to the opt out negotiated from the EU 48-hour maximum, or any plans to introduce a right to disconnect, unlike in the EU and Australia. Higher skilled women with outstanding loans for their education may also opt for part-time to avoid the additional 9% effective tax on earnings above £25,000 to pay off these debts.

However, many women may also find that if they are employed in sectors where part-time work is mainly used to target paid hours at demand peaks that it may not be possible to request the type of flexible working that facilitates care responsibilities where regularity and predictability are key. As there is no right to flexible working, staff may even only be offered insecure work, sometimes zero hours contracts and be expected to meet the employers' flexibility needs (Herman et al., 2021). Moreover, those in lower paid jobs are often unable to afford formal childcare, particularly if working hours vary and do not coincide with the childcare offer.

Retention-type part-time work could also be used for groups other than mothers to enable retention or reintegration of those with, for example, health problems or older workers⁶ who find full-time work too difficult. However, as is the case for women returning from a period outside employment due to childcare, until now those needing part-time work from the start

⁵ Gov.uk (2024) available at: <https://explore-education-statistics.service.gov.uk/find-statistics/education-and-training-statistics-for-the-uk>.

⁶ For anxiety, depression and muscular-skeletal conditions in particular, faster return to work has been found to lead to more sustainable recovery, suggesting the need for rights to request flexible working for workers with health conditions (see Kendall et al. (2015) and Etuknwa et al. (2019)). For older workers see Zhan et al. (2009).

have not been able even to request flexible working till after six months of employment. Employers have no obligation to provide flexibility to assist in reintegration of those unable to move from inactivity to full-time work. From 2024, there will be a right to request flexibility from day one, but it is still only a request.

There may also be problems of availability of retention-type part-time work in a locality. Internal migration studies have shown that older women are less mobile for economic reasons than men, often tied to their partners and only relocating due to family circumstances and life events, not for employment reasons (Clark and Young, 2003; Boyle et al., 2003). Moreover, few would choose to or be able financially to relocate for a part-time job. The presence of children in the home further reduces the likelihood of migration (Thomas, 2019). The absence of meaningful, high-quality jobs may leave certain demographic groups, such as graduate mothers, with limited options, namely either at best underutilizing their skills (Blackburn, 2010) or, at worst, withdrawing their labour altogether (Geist and McNanus, 2012).

3. Exploring the diversity of part-time work as revealed by the 2022-23 *Labour Force Survey*

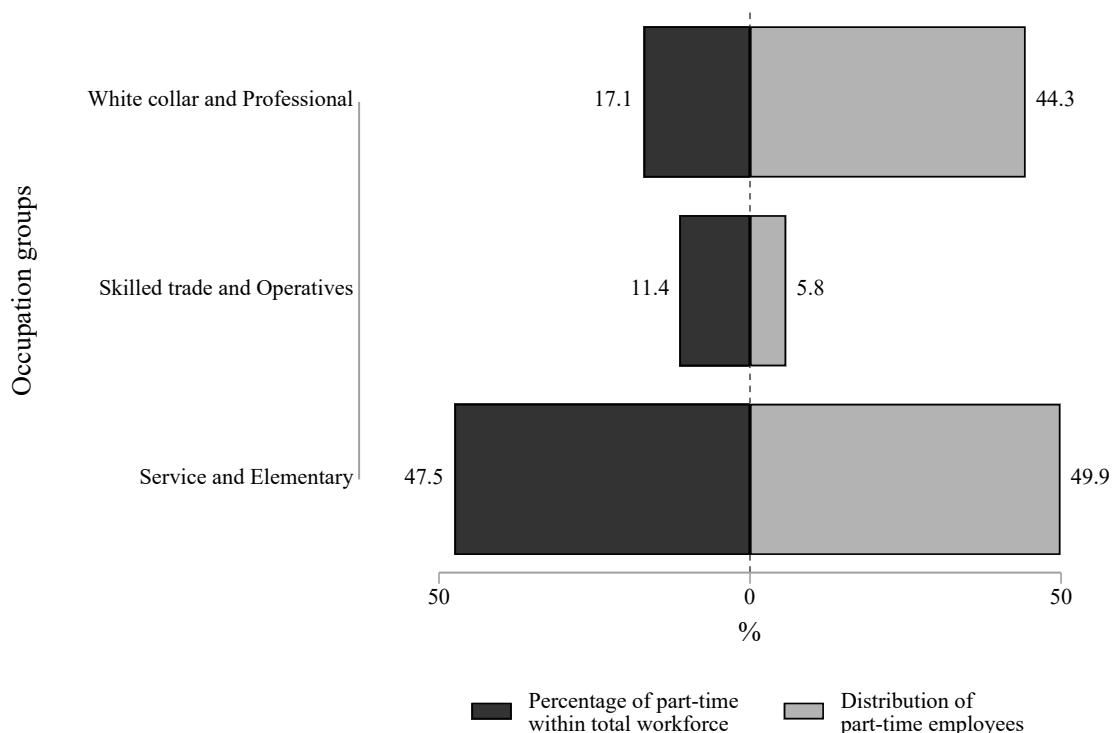
The heterogeneity of part-time work that can be expected to have increased in the UK over time is in many respects obscured by the treatment of part-time work in labour market statistics as a unified category. Many of the factors that shape the heterogeneity are not captured by standard labour force information but there are some indicators that we can use to map some dimensions of diversity and the differences both between part-time and full-time work and within the part-time work category. These differences relate to both the nature of the work and the working conditions and to the characteristics of the workers employed.

For this analysis, we use the 2022-23 *Labour Force Survey*, which is part of the broader *Annual Population Survey* (SN: 9117; ONS, 2023), and draw on data from the *Annual Survey for Hours and Earnings* (ONS, 2022) for employer-provided wage information. We focus first on identifying where part-time work is utilised at a significant level within the economy, second on differences in the revealed quality of part-time work according to broad occupational divisions; third on analysing both the incidence of part-time work and the revealed quality of part-time work by broad demographic characteristics of the part-time work force- by gender, age and educational level.

3.1 Where are part-time jobs located?

To look at where part-time jobs are found, we use one-digit occupational categories and aggregate these into three groups – ‘White collar and professional occupations’ (groups 1 to 4); ‘skilled trades and operatives’ (groups 5 and 8); and service and elementary occupations (groups 6, 7, and 9). These broad categorisations are motivated by the two main drivers of part-time work: retention-type part-time jobs are potentially more likely to be found in white collar and professional jobs while demand-driven service work is likely to be concentrated in the service and elementary occupations. The intermediate category of skilled and less skilled manufacturing, construction etc. tends to make relatively limited use of part-time work. These expectations are borne out by the data. Service and elementary occupations account for half of part-time jobs (49.9%), white collar and professional occupations for 44.3%, with the skilled trade and operatives only accounting for 5.8% (see Figure 1, right hand side)

Figure 1. Part-time work by occupational groups.



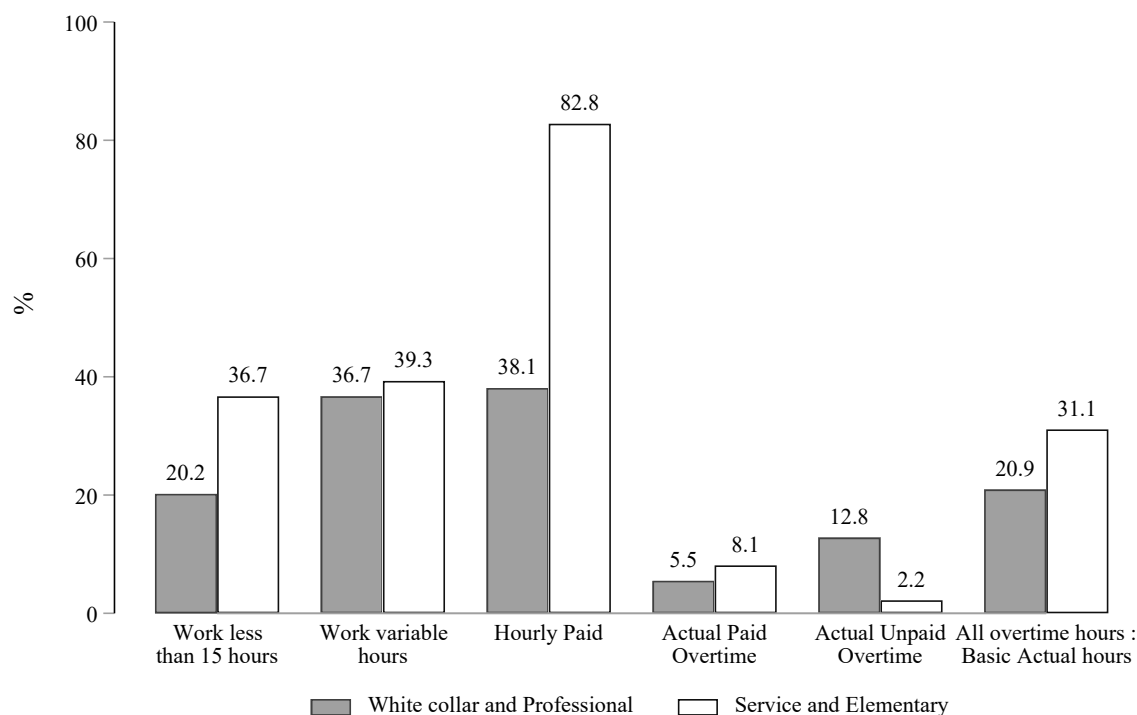
Source: APS 2022 own calculations

If we look at the share of part-time in these occupational groups' total workforce, the picture changes: part-time jobs account for 47.5% of the total workforce in the service and elementary occupations (6, 7, 9) but only for 17.1% of the total white collar and professional job workforce and 11.4% of skilled trades and operatives workforce (see Figure 1 left hand side).

Various indicators do provide support for the notion that part-time jobs in white collar and professional occupations are more retention driven and less likely to be focused on targeting hours of paid work to match varying demand. First of all, while only 37.4% of all part-timers say they are not hourly paid, among the white collar and professional part-time group that share is 61.9%⁷ (Figure 2). This suggests that this group of part-timers are more likely to be on salaried contracts in line with norms for full-time workers, 72.0% of whom are not paid hourly (84.1% in white collar and professional jobs). Likewise part-time employees in these occupations display work patterns associated with salaried contracts, namely being more likely to work unpaid than paid overtime (12.8% compared to 5.5%). Indeed full-timers in white collar and professional jobs have a similar low rate of paid overtime at 6.1% but over one in five (20.6%) work unpaid overtime.

⁷ For this variable population-income (*piwta*) weights were used instead of population weights (*pwta*).

Figure 2. Comparison of part-time work characteristics in white collar and professional versus service and elementary occupations



Source: APS 2022 own calculations

There is also a lower share of those in white collar and professional part-time jobs who usually worked less than 15 hours (20.5% compared to 36.7% in service and elementary occupations) (see Figure 3). This also fits with retention jobs being less likely to involve short minimum guaranteed hours contracts with actual paid hours varying according to demand. However, part-timers in white collar and professional jobs are only slightly less likely than those in service and elementary occupations to say that they work variable hours (36.8% compared to 39.3%). However these answers are difficult to interpret as variation may be employee driven or employer driven. Thus those in white collar and professional part-time jobs may be working variable hours due to unpaid overtime expectations and requirements to meet profession-related obligations but this variation may also reflect retention-friendly arrangements such as flexi-time or some autonomy to vary working hours in line with needs.

The patterns found for service and elementary workers are in many respects the mirror image of those for white collar and professional jobs. Thus, the majority of these part-timers are hourly paid and only 17.2% said they were not hourly paid (Figure 2). Overtime is mainly paid with 8.1% working paid overtime, and only 2.2% reported actual unpaid overtime, again a similar pattern to full-timers where paid overtime rate is 12.5% and the unpaid rate much lower at 4.6%. A much higher share had usual working hours of under 15 (36.7%) though the majority still work more than 15 hours. These are also the occupations with the highest shares of zero hour contracts (CIPD, 2022: Figure B6). The share saying they work variable hours is slightly higher than for white collar and professional part-time jobs but this could include a higher tendency for variation to be employer-driven. Unfortunately the data do not allow for that distinction. In line with demand-driven part-time work, those who do work overtime tend to add on more hours relative to their actual basic hours (an increase of 31.1% on actual basic

hours) than is the case for white collar and professional workers working overtime who record an increase of 20.9%.

Pay data can be used from ASHE (ONS 2022) as an indicator of the extent of possible progression opportunities within these two broad occupational groups. Data is only available for the individual major occupational groups and here we find major differences in the level and distribution of pay among the four occupational groups that we have classified as white collar and professional work (Table 1). Part-time work has the lowest incidence in managerial jobs and some of the largest pay gaps between full and part-time work (£16.13 median pay for part-timers representing a £7.16 part-time/full-time gap per hour at the median). In contrast in professional occupations part-time workers have much higher hourly pay at the median (£21.80) and a very low differential compared to full-time (only 43p). Part-time pay is lower for associate professionals at £12.70 for the median and the part-time/full-time gap widens to £3.82. Administrative and clerical jobs have a still lower part-time median pay at £11.51 but a smallish part-time /full-time gap at £1.66. To compare pay opportunities in these part-time jobs to prospects in full-time jobs we estimate⁸ the share of these workers who earn above the median hourly rate for all full-time workers- £16.34 in 2022. While that is 50%, by definition, for all full-time workers in all occupations, it is only c. 17% of admin and clerical part-time workers (24% for full-timers), 25% of part-time associate professionals (compared to 49% of full-timers), 80% of professionals working part-time (compared to 80% full-time professionals⁹) and around 50% of part-timers in managerial jobs (compared to 73% of full-timers).

Although there are still major part-time/full-time gaps for white collar and professional workers (except for professions), there are also major differences between these primarily retention-type jobs and those in service work. Compared to part-timers in white collar and professional occupations, the pay opportunities for part-timers in service and elementary jobs are even further constrained. However, here full-time hourly pay tends to be only marginally higher than that for part-timers: thus the median full-time pay rates for occupations 6, 7, 9 respectively are extremely close together (£11.27, £11.26 and £11.00) with the median for part-timers only 32 pence to £1.22 below. Not only does this represent an incredibly narrow distribution at the median level among the occupations and by full and part-time but pay opportunities even at the top of the pay distribution in these occupations are very limited: pay for full-timers only reaches the overall median full-time rate of £16.34 at the 90% decile in caring and leisure occupations and sales while full timers in elementary occupations are still £1.39 short of the overall full-time median even at the 90% decile point. In none of the three occupations do part-timers reach median earnings even at the 90th decile point where pay is £0.78, £3.14 and £3.94 below the overall full-time median for occupations 6, 7, and 9 respectively.

These data may suggest that the major problem with part-time work lies in its occupational distribution for although retention-type jobs have been growing, part-time work only constitutes 17.1 percent of white collar and professional jobs while accounting for close to half of service occupations. Furthermore, there are relatively narrow and sometimes reverse gender

⁸ These estimates are based on interpolation between the decile points based on assumptions of even distribution between the points.

⁹ This equality between full and part-time professionals may reflect issues with the way pay for part-time workers is recorded: for example in some professions such as university teaching pay is often related to time spent in face to face teaching but with the understanding that this teaching work will require additional preparation time that is not explicitly counted.

gaps in pay rates for part-timers by occupation, including an overall reverse gender gap of 36 pence in favour of female part-time workers at the median level. The data suggest that both male and female workers are disadvantaged by part-time status, with the more significant gender gaps within occupations applying between full-time workers¹⁰. However, the predominance of part-time work in some service and elementary occupations may have had a deleterious impact on conditions for full-timers. A clear historical example is the removal of unsocial hours premiums for full-timers once the use of part-time staff without pay premiums for weekend or evening work became a well- established practice (Rubery, 1998). Likewise for social care, research has found that full-time senior care workers have been offered only marginally better pay than the part-timers, with the main advantage of a senior role being the guaranteed hours, not the progression as measured by hourly rates (Rubery et al., 2015). Thus, in service and elementary work the issue may be more about hourly pay for both full and part-time workers and problems of security and sufficiency of hours for part-timers.

Table 1. Hourly pay for part-time and full-time workers by major occupational group in the UK

SOC	Occupation groups	Median hourly pay (£)			Percentage of part-time earning above median FT pay* (FT)	Difference between 90 th percentile PT and median FT pay*
		Full-time	Part-time	Difference		
<i>White-collar and professional</i>						
1	Managers, Directors, and Senior Officials	23.29	16.13	-7.16	50 (73)	+14.69
2	Professional Occupations	22.23	20.81	-1.42	80 (80)	+20.16
3	Associate Professional and Technical Occupations	16.52	12.7	-3.82	25 (49)	+5.06
4	Administrative and Secretarial Occupations	13.17	11.51	-1.66	17 (24)	+3.58
<i>Skilled trades and operatives</i>						
5	Skilled Trades Occupations	14.05	10.19	-3.86	<10 (30)	-1.31
8	Process, Plant, and Machine Operatives	12.63	10.39	-2.24	<10 (20)	-1.61
<i>Service and elementary</i>						
6	Caring, Leisure, and Other Service Occupations	11.27	10.95	-0.32	<10 (<10)	-0.78
7	Sales and Customer Service Occupations	11.26	10.06	-1.20	<10 (13)	-3.14
9	Elementary Occupations	11.00	9.78	-1.22	<10 (<10)	-3.92
	Overall	16.34	11.19	-5.15	24 (0)	+8.11

Source: ASHE (ONS, 2022)

*Median hourly pay for all full-time workers

¹⁰ The overall gap at median level for full-timers is £1.28 per hour in favor of men compared to 36 pence in favour of women for part-timers. Gender gaps for part-timers by major occupational group range from 88 pence in favour of men to 32 pence in favour of women, suggesting relatively high equality around low pay levels for part-time work. Gaps between female and male full-timers within major occupational groups are always in favour of men and exceed £2 an hour in occupational groups 1, 2, 3, 5, and 8 but fall to under £1 in groups 4, 6, 7 and 9. These latter groups have high shares of female employees overall.

3.2 The demographic characteristics of different types of part-time work

The demographic characteristics of who works in part-time jobs across these broad occupational groups also fits with expectation of the diversity of the nature of part-time jobs (Table 2). Young people (aged 16 to 24) who might be expected to be likely to be concentrated in service and elementary work constitute nearly 31.4% of part-timers in this category compared to 19.1% overall and only 5.7% in white collar work.

Women constitute the great majority of all part-time workers (75.1%) but there are notable differences in both the dominance of women and in the age distribution of the women employed. Thus, women account for 82.4% of part-timers in white collar jobs and 73.5%, in services and elementary jobs, while in the skilled trades and operative jobs men account for two thirds of all part-timers. There are also differences in age distributions by gender: for women, the largest age group is 25 to 49, accounting for 47.9% of all women part-timers, while, for men, the share in this age bracket is only 29.9%. While the proportion of the adults under 25 is over twice as high among male part-timers as among women part-timers (31.3% compared to 15.1%), more young women still work part-time (769 thousand compared to 529 thousand for men).

When it comes to the gender and age demographic composition of part-timers by occupational group, for the white-collar group not only are women more dominant but also women in the key retention age group of 25 to 49 account for 54.1%, compared to 41.8% in service and elementary jobs. Although for both men and women around four-fifths (81.8%) of younger part-timers are concentrated in the service and elementary jobs, even here midlife and older workers still dominate, particularly for women, accounting for around three quarters (74.2%) compared to 53.4% for men. The high share of men among skilled trades and operatives is, however, primarily accounted for by mid-life and particularly older workers who combined account for 83.8% of the male part-timers in this group; with over a fifth (21.9%) aged 65 and older. This suggests that part-time work may be an important means of retaining older male workers in these occupations, possibly because of ill health and the physical demands of more manual work.

The third demographic dimension we explore is the distribution of graduates versus non-graduates within this spectrum of part-time jobs. Graduates are underrepresented within the part-time workforce, constituting 31.8% of total part-time employees compared to 45.9% of full-time employees. Graduates are more likely not to be hourly paid (57.9% compared to 27.5% of non-graduates) and to work more than 15 hours (79.7% compared to 67.8% for non-graduates). Overall, non-graduates account for over three-quarters (77.2%) of all those working 15 hours or less.

Just short of three-quarters of graduate part-timers (72.0%) are in white collar jobs where retention is likely to be a major driver of part-time work while 61.0% of non-graduates are in service and elementary jobs. There is only a slightly higher share of graduates among women than for men (plus or minus one percentage point) but if we look by occupational groups stronger differences emerge. Female graduates in part-time jobs are more concentrated in white-collar jobs (75.3%) and less in service and elementary jobs (23.8%) than is the case for male part-time graduates (60.4% and 34.0% respectively). The location of those with graduate qualifications in these lower skilled areas is an indication of overqualification and underutilisation of achieved education. This is particularly worrying for those aged 25 and older as younger workers may be only temporarily in these roles while making a bridge

between education and their career jobs education. This risk of entrapment in underutilisation applies to 2.8 times as many women as men (319k compared to 113k).

Table 2. Gender and age composition of part-time workforce by occupational types

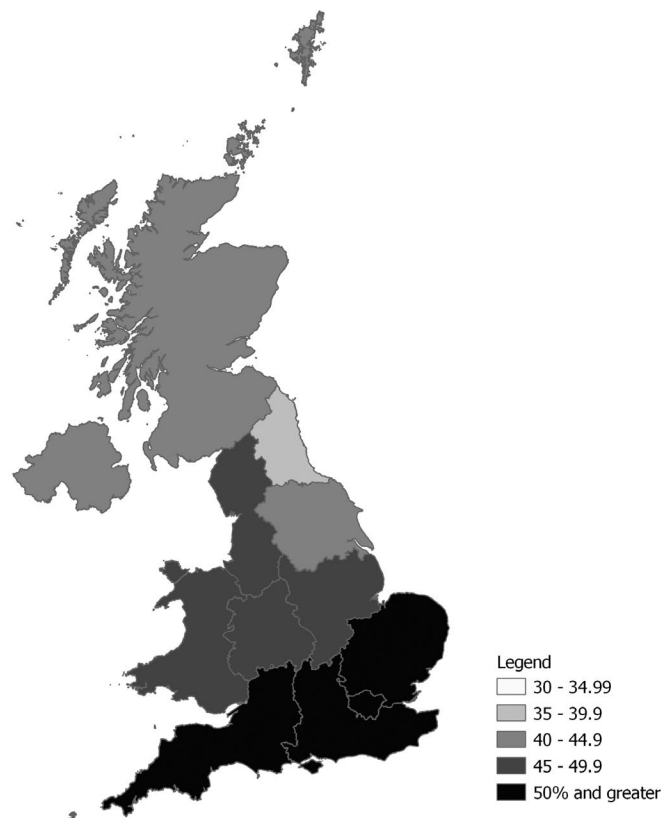
Occupation class SOC	A. Percentage of part-time				B. Distribution by occupational group				
	White collar / professional 1, 2, 3, 4	Skilled trades and operatives 5, 8	Service and elementary 6, 7, 9	Total PT	All FT	White collar/ professional 1, 2, 3, 4	Skilled trades and operatives 5, 8	Service and elementary 6, 7, 9	Total PT
Age Group									
<i>All</i>									
16-24	5.7	14.5	31.4	19.1	10.1	13.3	4.4	82.3	100
25-49	49.9	35.5	38.5	43.4	61.8	51.0	4.7	44.3	100
50-64	35.1	33.4	24.6	29.8	26.6	52.2	6.5	41.3	100
65+	9.2	16.6	5.5	7.8	1.5	52.5	12.4	35.1	100
Total	100	100	100	100	100	44.3	5.8	49.9	100
<i>Women</i>									
16-24	4.3	11.0	25.8	15.0	11.1	13.9	1.9	84.2	100
25-49	54.1	46.1	41.8	47.9	61.8	54.9	2.4	42.7	100
50-64	35.2	37.1	27.3	31.4	25.9	54.5	3.0	42.5	100
65+	6.4	5.8	5.0	5.7	1.2	54.6	2.6	42.8	100
Total	100	100	100	100	100	48.6	2.5	48.9	100
<i>Men</i>									
16-24	12.3	16.2	46.6	31.2	9.4	12.4	8.1	79.5	100
25-49	30.5	30.3	29.4	29.9	61.8	32.0	15.8	52.2	100
50-64	34.9	31.6	17.2	25.0	27.0	43.7	19.7	36.6	100
65+	22.3	21.9	6.8	14.0	1.8	49.9	24.4	25.7	100
Total	100	100	100	100	100	31.3	15.6	53.1	100
Qualification level									
<i>All</i>									
Graduate	51.7	10.5	16.6	31.8	45.9	72.0	1.9	26.1	100
Non-graduate	48.3	89.5	83.4	68.2	54.1	31.4	7.6	61.0	100
Total	100	100	100	100	100	44.3	5.8	49.0	100
<i>Women</i>									
Graduate	51.3	11.4	16.2	33.1	50.8	75.3	0.9	23.8	100
Non-graduate	48.7	88.6	83.8	66.9	49.2	35.4	3.4	61.2	100
Total	100	100	100	100	100	48.6	2.5	48.8	100
<i>Men</i>									
Graduate	53.7	10.1	17.9	27.9	42.4	60.4	5.6	34.0	100
Non-graduate	46.3	89.9	82.1	72.1	57.6	20.2	19.4	60.5	100
Total	100	100	100	100	100	31.4	15.5	53.1	100

Source: APS 2022 own calculations

The availability of quality retention-type part-time jobs for women may also vary by area, potentially causing problems as migration is not a feasible option for part-time work. Some

indication of potential spatial inequality in access to part-time jobs is provided in Figure 3 which shows that in the North East only 38.1% of women in part-time jobs are in white collar jobs, over ten percentage points below the average UK share at 48.6%, followed by Northern Ireland (42.8%). The South East has the highest white collar (55.7%) at seven percentage points above the average. This variation in women's part-time work is greater than for male part-time workers where the average share of white-collar and professional occupations is 31.3%, the lowest in the North East (24.5%) and highest in the South East (41.2%). There is less regional variation in the composition of full-time jobs for women than part-time work so that variations in quality part-time jobs may not be fully explained by the overall jobs structure for women and are thus worthy of further investigation.

Figure 3. Percentage of women part-time employees in white collar and professional occupations



Source: APS 2022 own calculations

4. Part-time work and productivity

This section now turns to our second question and that is the role played by part-time work in the productivity problem in the UK. Through our historically-informed and empirical analysis of the emergence of heterogeneity in part-time work, we have established the need not to lump together all part-time work and to pay attention to differences between sectors and indeed between workers, by gender, life stage and indeed social class (where qualification level can be taken as a proxy). The different purposes and organisation of part-time work are likely to have very different implications for the productivity problem from the perspective of firms, employees and the wider economy as we now explore. Furthermore, the debate on productivity needs addressing from two perspectives: the first is to consider what is the evidence that part-time work enhances or decreases productivity at a cross-sectional basis in workplaces where it is used. This requires a review of the limited existing work on productivity and part-time that has mainly taken a firm or sector level perspective. The heterogeneous nature of part-time jobs means that there is not necessarily one answer to this issue as part-time work serves different functions, dependent upon the motivations for offering part-time work and the conditions of work associated with part-time.

The second perspective is broader and considers the implications of current opportunities for part-time working on the prospects for those taking up part-time work living a productive life that can contribute to the overall productivity potential of the UK economy. The long term goal of solving the UK's productivity problem must involve enhancing the productivity of all those with the potential to contribute to the economy; there is no benefit to the society if, for example, the search by firms or sectors for short term cost reductions or productivity gains saps the capacity of their workforces to develop and thrive over their life course, particularly if there are negative impacts on health and wellbeing. A productive economy requires opportunities for the individual citizens to lead productive and healthy lives. At a minimum part-time work may contribute to societal-level productivity simply by helping women to remain integrated into employment, as the OECD (2018) found that increases in women's employment have accounted for at least a fifth of overall growth over recent decades in the countries studied (including the UK), except where female employment rates were already high. The aim should go further to ensure that all have opportunities to use their talents and avoiding extended periods of work that are stressful and difficult to combine with a stable and fulfilling life. One issue is whether there are opportunities to work part-time without occupational downgrading, restrictions on use of skills and under reasonable working conditions – decent work as the UN's Sustainable Development Goals term it. A further issue is what is the impact of working part-time on opportunities to progress and develop over the life course.

The impact of part-time on productivity will also depend in part on the institutional arrangements and regulations that shape the types of part-time work and their associated working conditions so that it is not possible to generalise from country-level effects. Indeed we would not argue that there are any inherent characteristics of part-time work or part-time workers that lead to deterministic productivity impacts. Even if there may be delays, for example, in initially acquisition of skills, this stage does not last forever and issues of burnout for those working long hours may have a similar or even greater negative impact on productivity. In short, what constitutes full- or part-time work is determined by social processes and not by employers optimising for productivity reasons the ideal number of paid hours spent in work. An important issue shaping part-time work productivity may be the way this group of workers is managed. For example, part-time workers may be segregated from full-time, through divisions within a company's labour force or through outsourcing to a mainly part-

time service company. This may facilitate the offer of differentiated pay and conditions (Baron and Kreps, 1999). Alternatively, they may be integrated within the company's main workforce structure, although still possibly unable to access the training or experience needed for further progression. Thus, the extent of segregation by sector and occupation and the patterns of integration or segmentation within an organisation may all impact on the productivity outcomes.

In the next section, we discuss the available evidence on productivity impacts of part-time work at the workplace or firm level, followed by a discussion of opportunities for part-time workers to live productive lives. The key arguments from different perspectives on the debate are summarised in Table 3, while the evidence base is assessed in the sections below.

4.1. Part-time work and firm-level productivity

To consider the impact of different types of part-time work on productivity, we start with the middle category of regular part-time work as most of the research to date has focused on part-time as a generic form. This middle type involving more regular but not integrated part-time work fits this generic category where both demand- and supply-side factors shape the organisation of part-time work and the motivations for offering it as an employment form.

Productivity and regular part-time work

Much of the research on the productivity effects of part-time work on firm-level productivity has looked at the overall shares of part-time work with at most distinctions made between long and short part-time and by gender (see for example Garnero et al., 2014). There are various reasons for expecting part-time work to have negative impacts on productivity. These include the time taken to get up to maximum speed or effectiveness from starting work; management problems of continuity and coordination either internally or with clients (sometimes resulting in part-timers not being allocated high value added work); costs of managing more staff and training more people (sometimes leading to routinisation of part-time jobs); and communication issues if for example part-timers are absent from key team meetings; and the motivations and the capacities of those who choose to work part-time (see Garnero et al. (2014) for a summary of these expected effects). Many of these effects may be expectations and not actually based on evidence, particularly in relation to presumed motivations and capacities of the part-time workers. Even more importantly there are strong reasons in many contexts to expect part-time work to be more cost effective and likely to enhance productivity. Part-time workers may take fewer breaks if their shift ends before, for example, the lunch break; if such breaks are paid then there are cost and productivity implications. Part-timers may be deployed to cover full-time breaks - say over lunch - if continuity of service is required or to extend the working day or the working week without overtime work and premium payments (Künn-Nelen et al., 2013; Rubery, 1998). Part-time contracts can also be targeted to the amount of work available, thereby reducing risks of idle time during the working week due to variations in workflow (Supiot, 2001) and increasing work intensity.

Table 3. Three types of part-time working

Type of Part-Time	Hourly Productivity (GVA per hour of employment)	Person/life course productivity
<i>Type 1.</i> Retention-type part-time – (reduced hours work within mainly career-type jobs,)	<p>Positive effects for employers related to reduced costs of recruitment and training due to better retention. Employers may also find it convenient to have qualified employees who accept lower pay and prospects.</p> <p>Negative productivity effects compared to full-timers may be due to lower experience/ fewer opportunities for skill upgrading (may widen over time) plus issues such as start-up time, motivation, coordination issues with co-workers and clients, willingness/ unwillingness to complete tasks in unpaid hours.</p>	<p>Opportunities for reduced hours should reduce gap in full-time/ part-time trajectory over life course as avoids occupational downgrading and reduces risk of burnout compared to working full-time.</p> <p>But lack of training or challenging work opportunities and promotion may lead to underdevelopment of skills and talents. Right to work part-time for another employer restricted, leading to entrapment. Productive life opportunities may also depend, given poor opportunities for part-timers, on opportunities to return to full-time work (and if workload associated with full-time work is not excessive)</p>
<i>Type 2.</i> Regular but not career- integrated part-time work	<p>Positive productivity effects stem from lower pay costs (if employee in weaker bargaining position), opportunities to vary staffing levels to match predictable variations in demand, fewer paid breaks and opportunity to cover for full-timers without premium costs.</p> <p>Negative productivity effects may arise from startup times, motivation, coordination issues with co-workers and clients, and extent of willingness to complete tasks as paid or unpaid overtime compared to full-timers.</p>	<p>Most regular non career part-time jobs offer limited opportunities for skill or pay progression. Opportunities to transition back to full-time may be limited. In some part-time work areas, the problem may be the low monetary value attached to the work not the low intrinsic value/ productivity of the work. Financial insecurities may offset benefit of shorter hours on health and well-being.</p>
<i>Type 3.</i> Variable hours part-time work to match service delivery flows	<p>Positive productivity effects from fragmented/short shifts that target peak demand and increase work intensity, plus lower costs due to subsidies for short hours work through national insurance system. Measured productivity is higher if actual work time longer than paid for time.</p> <p>Negative productivity effects may arise from problems of recruitment and retention, motivation and service quality.</p>	<p>Fragmented work leads to higher GVA per paid hour but lower wages and unpaid/unproductive ‘waiting for work’ time for employee. Consequently, low income/underemployment or excessive work hours to achieve reasonable income all may have negative impacts for health and wellbeing. Possible high stress due to looking for more work (for financial reasons or to meet benefit regulations) and managing care commitments alongside flexible schedules.</p>

The research evidence on the impact of part-time work on firm-level productivity is thus unsurprisingly mixed. Some studies find positive effects such as Boltz et al. (2023) where the main source is through a positive motivational effect. Other studies, particularly on retailing find positive impacts due to reduced costs: for example, a Dutch study of pharmacies found positive impacts stemming largely from the use of part-timers for flexible and cheap working-time extensions and cover for breaks and absences (Künn-Nelen et al., 2013). While this latter study has been critiqued by Specchia and Vandenberghe (2013) for its cross-sectional data, their own longitudinal study on Belgian companies found negative impacts particularly for short part-time, although this changed to a positive impact in retail. This may be explained not only by the opportunity to adjust to regular fluctuations in demand patterns but also by the use of variable hours in retail for more fine-tuned adjustments – as discussed further below. Similar negative results were found by Devicienti et al. (2015) for Italy while Garnero et al. (2014), also using an employer-employee matched data set for Belgium (though not the same one), found that male part-timers enhanced productivity but not female part-timers, even those on long part-time hours. However, in later work Garnero (2016) attributed mixed results to the heterogenous nature of part-time work as we note in our introduction.

Productivity and retention-type part-time work

The main recognised productivity-impact of retention-type part-time work is the opportunity to retain staff in areas of labour shortage or with high firm-specific knowledge. However, the productivity of these part-time staff is put implicitly in question by employers' tendency not to offer the same opportunities to part-time staff to develop and utilise their skills. They may find themselves confined to more routinised work and denied training and promotion opportunities. These actions may be rationalised by productivity issues, such as whether the part-time worker is interested in or motivated to take on more demanding work and progression or concerns about client reactions to being allocated to a part-time member of staff. Some of the research on the motherhood pay gap included in an ILO review by Grimshaw and Rubery (2015) pointed to how beliefs with respect to the productivity and commitment of mothers could prove self-fulfilling and that allocation of part-timers to less challenging work may be based mainly on employer views of what was either possible or desired. For example, as Self (2005) argued, if mothers are confined to jobs offering limited chances of progression, they are likely to take on more and more of the responsibilities for childcare.

Doubts about the evidence base on which employers base their work organisation decisions have increased since the forced roll out of remote working during the Covid-19 pandemic revealed that pre-pandemic they had exaggerated the presumed negative impacts of working remotely. Likewise, assumptions may be made about the motivations and the capacities of groups- in this case mothers and/or part-time workers- to be productive. Employers may also find it convenient to have a group of well-qualified and experienced staff who can be regarded as not seeking significant promotion or pay rises to work on relatively routine tasks within the spectrum of professional/higher level work. This enables training, promotion and pay rises to be focused on those identified as having ambitions to move up the career ladder. Part-time staff may in some organisations be automatically excluded or become excluded because of lack of the appropriate experience. This treatment would not necessarily lead to high quit rates because staff have not been able to change jobs without risking not getting agreement to flexible

working. Only from 2024 is there now a right to request flexible working from day one instead of after six months employment. It still remains only a right to request.¹¹

Work by Kossek and Ollier-Malaterre (2020) suggested that more attention on how to reduce workloads could enhance the productivity and effectiveness of part-time workers. Collaboratively deciding on which tasks to take away and how to integrate the reduced load workers within the team and organisation could help. Some interesting examples are quoted, where jobs are split not by hours but by task or subject, where work may be scheduled for reduced load workers to fit better with the rhythms of the core workforce rather than aiming for an even distribution of staffing over the week, or where reduced load jobs may be designed from scratch. However, there is still a presumption that some high value activities such as key clients could or should not be allocated to those seeking a reduced load. Another alternative, however, could be to have joint or shared responsibilities for clients. This discussion of reduced loads work design also points out that organisations rarely undertake serious reviews of workloads or job design for full-timers (Kossek and Ollier-Malaterre, 2023). This may mean that the workload for full-timers is too high for a reasonable and sustainable working life; excessive expectations of both time commitment and flexibility for full-timers may make it harder to integrate part-time staff on the same career trajectory. For example, working four days a week may not be seen as an 80 percent workload if full-time staff regularly work the equivalent of six days a week. The still low share of part-time work within managerial occupations (only 5% compared to around 18% in professional occupations) may indicate that continuing barriers to reducing workload are particularly prevalent in these occupations where there may be even greater expectations of constant availability in the digital communications age.

Productivity and variable part-time service work

There has been limited productivity-related research on the use of variable hours and variable scheduling in service and elementary occupations. The investigation of productivity in low paying sectors by Forth and Aznar (2018) found that Britain's productivity problem lay more in the higher wage than the low wage sectors – where most of these jobs are located- and that although there was still a negative average gap between productivity in the UK in these sectors and the levels found in other major economies, this gap had not worsened significantly over either the period before or in the six years after the financial crisis. These findings, while hardly suggesting a stunning performance, are consistent with the clear belief among employers in these sectors that ability to schedule work and only pay for work to meet high levels of demand is a major factor in the productivity of the organisation.

Forth and Aznar's (2018) work found a positive but non-significant coefficient attached to the share of part-time work. There is also sector/occupation specific research in support of these findings. In retail the study by Künn-Nelen et al. (2013) on Dutch pharmacies emphasised the beneficial productivity effect of flexible scheduling. However, Lambert (2020) found that in the US retail employees' schedules varied a lot more than the actual variability in customer demand. The implication is that there is still considerable predictability in demand patterns even in these sectors and that the variability in employees' hours may be in part because employers do not effectively plan their staffing rather than because staffing needs are only known at the last minute. Indeed Kesavan et al. (2022) report on an experiment in retail (with

¹¹ The Employment Relations (Flexible Working) Bill allows flexible working to be requested from day one of employment (Rubery et al., 2023)

GAP stores in the US) to introduce more regular working times that led to increased productivity. In social care the benefits of flexible hours are mainly felt by the funder (the government and the local authorities) as they only pay for direct contact time and not for travel between clients or gaps between clients, even if these cannot be utilised by the employee for non-work activities (Rubery et al., 2015). In elementary jobs such as cleaning, short hours contracts are used to give employers maximum flexibility even though much of the workload is stable (Grimshaw et al., 2019). In these cases, productivity growth comes at the expense of worse working conditions for the employed staff.

4.2 Part-time work and productive lives

The impact of part-time work on firm-level productivity is important not only for its immediate impact on measured productivity but also for considering the incentives for and limits to part-time work from the point of view of employers. However, some negative impacts may arise from employer actions based on stereotypes and expectations related to the capacities and motivations of part-time workers. Note such stereotypes can result in statistical discrimination against individuals who do not conform to the stereotype even if - and it is a big if - the stereotypes hold on average. However, for the longer-term productivity needs of the UK economy, it is even more important to consider the impact of part-time work in enabling people to have productive lives.

By productive lives we mean not only the opportunity to learn, develop and utilise skills and talents to the full, as is clearly important for a productive society, but also opportunities to avoid work contexts that may cause stress and ill-health which have negative productivity impacts on both the individual and the society. Here we argue that part-time work can be both a mechanism by which people are able to pursue productive lives in both senses but also a cause of constraints on productivity, both limiting talent utilisation and causing stress and associated health and well-being issues. Part-time work may be a lifeline, especially for some women with childcare responsibilities, but it can be also a life sentence, trapping those who opt for part-time in jobs that offer limited opportunities for skill development and in some sectors causing insecurity and stress. What matters may be how both part-time work and its alternative, full-time work, are managed. We discuss these issues with respect to our three identified types of part-time work.

Productive lives and regular part-time work

Those who either continue in or enter regular part-time work in mid-life run severe risks of not being able to develop and utilise their full talents. This is due to a lack of progression opportunities in sectors utilising a high share of part-time work and lack of development opportunities for part-timers even when they are employed in sectors with progression opportunities. There are further risks, not elaborated on here, that the whole sector in which they are employed may be undervalued due to its association with women's work (Grimshaw and Rubery, 2007).

The reason for the lack of progression opportunities are various, from employers' perceptions of part-timers' apparent lack of appetite to undertake training or develop their skills to new levels, to the lack of a care infrastructure to enable them to work longer hours or return to full-time work. Unlike some European countries (Rubery et al., 2022) there are no rights to return or to request a return to full-time working when care burdens, for example, ease. The lack of development opportunities associated with part-time work has been well evidenced in the past

by research showing zero or even negative impacts from part-time work experience on pay in explorations of causes of the gender pay gap (see below for an update on how retention-type part-time work may be changing this).

On the other side of the coin, working regular part-time hours may reduce workplace stress, particularly when the employee has heavy domestic work responsibilities and may, for those with ill health or disabilities, offer a good way of retaining staff in work or reintegrating them back into work (Etuknwa et al., 2019; Kendall et al., 2015; Zhan, 2009). These benefits may, however, be offset if part-time work leads to problems of insufficient income, a need to search for extra work to make ends meet or simply to satisfy benefit providers - as we discuss further below - or if part-time work is associated with generally poorer working conditions. Warren (2004) argues that the positive impact of part-time work on women's lives has been overstated due to a two-dimensional focus on what matters- work and family - while neglecting the impact of part-time work on financial security and on social lives.

Productive lives and retention-type part-time work

The increasing share of part-time work designed for staff retention has followed the increasing feminisation of many areas of professional work, again consequent upon women now providing the majority of new graduates. These retention opportunities are not only supported by the right to request flexible working legislation but also may be considered essential in rapidly feminising professions such as law or medicine where women form the majority of those with the required qualifications. Opportunities for productive lives are also increased for mothers in these types of jobs who are able to combine their childcare responsibilities with working in their chosen career without having to occupationally downgrade to obtain a job with reduced hours. This has become evident in the now positive impact of part-time work experience on pay in a recent investigation of the gender pay gap (Olsen et al., 2018). This change in the coefficient is attributed to the right to request part-time work in career-type jobs. This also fits with Bardasi and Gornick's (2008) study that found that the part-time pay gap was due in large part to occupational segregation and rights to flexible working has helped in reducing forced occupational downgrading. The situation may improve further with the new right to request flexible working from day one rather than six months in employment: a 2019 Working Families survey found 65% of respondent did not feel they could change jobs as they risked not being able to have similar working hours as in their current job.¹²

However, there are still some higher qualified women who end up taking lower skilled jobs, in part because of the lack of a right to flexible working, and even requests for flexible working if changing jobs or re-entering employment being up till now subject to a six month wait. In our analysis by broad occupational groups, we found that 300 thousand graduates in the mid-life 25-49 age range are working part-time in low paid service work occupations and 223 thousand of these are women. So there still appears to be some occupational downgrading or mismatch with qualifications even if this is less a problem than before (Dex and Shaw, 1986; Connolly and Gregory, 2008). Some of these graduates in mid-life in service and elementary jobs may not have managed to secure what is regarded as a graduate-level job (Elias and

¹² Working Families 'Working Families' response - Transparency of flexible working and family related leave and pay policies' 2019. Available at: <https://workingfamilies.org.uk/wp-content/uploads/2019/11/WF-and-FFWS-response-on-flexible-working-parental-leave-and-pay-transparency.pdf>.

Purcell, 2004) after completing their education while others may have moved into these roles after childbirth or other disruptions to their career.

While retention-type part-time work is generally good news for gender equality, it also opens up wider inter-class differentials between those women, mainly from the middle classes, who are able to continue to pursue their careers and those in lower skilled work where there is an increasing lack of progression opportunities for both full-time and part-time labour (Warren and Lyonette, 2018).

Furthermore, the good news is tempered by evidence of flatlining in pay and progression after childbirth for women including those with graduate qualifications. According to studies by the IFS, it is childbirth that has the main impact on the trajectory of women's annual earnings path and that leads to widening of the gender gap due to reductions in all three of the components that determine differences in men's and women's earnings over the life course, namely wage rates, hours worked and participation (Andrews et al., 2021). There is also a widening gap in earnings between graduate women and graduate men from the peak time of childbearing when the gap between male and female graduates accelerates though due to lack of data this cannot be differentiated to measure the impact of changes in hours worked (Britton et al., 2020). There is now an extra twist to the cost of entering part-time work for women graduates with loans to pay back due to tuition fees. Until 2023, those whose earnings fell below £27,295¹³ did not have to make contributions towards paying back their student loans. For every year paying no or only low contributions, one year was effectively deducted from the 30 year life of the debt so that over say a 40 year plus work history at least around the last 10 years of work were likely to be debt free. From 2023, the life of the debt extended to 40 years so women who move to part-time work for a period know that they are likely to be paying off this debt at a 9% tax rate above the now reduced threshold of £25,000 for their full working lives. The only way to avoid this high tax rate is to remain in relatively low paying part-time work. The outcome is to further reduce the benefits for women from studying for a degree. Although the returns to university education remain positive for women, this is only because of poor prospects for women in non-graduate jobs. Furthermore, women graduate earnings in real terms have fallen faster than men's (Grimshaw and Miozzo, 2021), reflecting the impact of austerity wage settlements in the public sector where women are overrepresented. Over time, these reduced earnings coupled with this new debt repayment plan could reduce incentives for women to study for degrees in the first place.

Productive lives and variable part-time employment

While on balance the growth of retention-type part-time work for those able to benefit is positive for gender equality, those employed in variable part-time service work are likely to face not only problems of fully utilising their skills and talents or being rewarded for them but also problems of stressful work. This is due to insufficient guarantees of work and irregular and short notice time schedules leading to both financial problems and problems of managing time and commitments (Lewchuk et al., 2008; Warren, 2015). Donnelly (2022) found that this was particularly the case if this type of work is experienced in mid-life, and this is mainly the case for women. Research has found that the insecurities associated with irregular hours jobs can be stressful (Golden and Kim, 2015; Lambert, 2022) particularly if under pressure to work multiple jobs (Smith and McBride, 2023) or take any shifts offered due to both financial

¹³ IFS estimated that these changes would cost women on average £11,600 more a while men would see on average a reduction of £3,800 in their repayments (Waltman, 2022). See also: Gov.uk 'Repaying your student loan' 2024, available at: <https://www.gov.uk/repaying-your-student-loan/what-you-pay>.

problems and fear of consequences from turning work down. These pressures increase for those trying to combine work with childcare. Formal childcare hours and fees tend to be fixed which does not fit with variable hours jobs especially if they involve unsocial hours. These types of jobs may lead to the opposite of productive lives as much time can be spent waiting for work or commuting for short shifts which is almost by definition unproductive time. Moreover, these jobs offer limited progression opportunities and even more senior jobs being affected by the culture of variable hours: for example, senior care workers might be expected to fill gaps in the rota and hence work long and unpredictable hours (Rubery et al., 2015). Welfare systems such as Universal Credit in the UK that require those in jobs not offering guaranteed full-time hours to consistently seek more hours or different employment can also add to the stress (Dwyer et al., 2020).

5. Conclusion. In search of more productive lives for part-time workers

Sustainable productivity growth requires a focus on opportunities to pursue productive lives. That is policies need to support the well-being, development, and full potential of individual workers, alongside policies that support labour participation, especially for women. Part-time work can be both a mechanism to support productive lives and also a barrier to progression and a cause of insecurity of income and working time. Improving long-term UK productivity means focusing on individual worker development and well-being, not just short-term gains, particularly those that come at the expense of decent working conditions and insecurity over both financial rewards and working time.

There have been improvements in the opportunities to continue in career-type jobs through part-time work, especially for those with higher qualifications. Part-time work may be regarded as becoming rather less of a dividing factor in the segmentation of the labour market due, on the one hand, to more integration of part-time work into quality jobs sectors, even if this may result in continuing vertical segregation with respect to managerial occupations and other higher level jobs. Second, in the service and elementary occupations where part-time work tends to dominate, the conditions of work for full-timers also offer few prospects of progression. However, many more part-time workers are concentrated in these occupations and the issue of variable and insufficient hours means that working part-time still comes with significant disadvantages.

Overall, the positive developments in part-time work come with three main caveats. First, the transition to part-time work still has a depressing impact on careers and pay progression and ultimately productivity of the economy. Second, opportunities for job mobility are restricted for those in part-time jobs both because of a lack of rights to work flexibly, even when having high care responsibilities, and due to shortages in the supply of quality part-time jobs, particularly in the local area as migration or long commutes for work are often not feasible. Third, while opportunities have improved to some extent for those in middle to higher level jobs, the quality of jobs for lower skilled part-time workers may even be deteriorating. Those in service occupations often face insecurity of working hours and income even if hourly pay has improved along with the rise in the national minimum wage since 2015. For this group of workers, higher productivity achieved through more variable scheduling and reductions in paid working hours comes at the expense of decent working conditions. These arrangements may cause long term stress and poorer well-being if workers, primarily women, have to work under such conditions into midlife and beyond.

This heterogeneity of part-time work means that there is no one policy initiative that could assist all those needing to work part-time for temporary or longer term reasons. However, improving access to and reducing the costs of childcare comes close to potentially providing universal help for all working parents and bridging the gap between those who can currently afford formal childcare and those who cannot. Such childcare provision can be regarded as both an investment in future generations, the key essential for a productive economy and as providing the means for shared responsibilities with partners, as men are more likely to be able or willing to take more responsibility if there are more services to support the role. Available and affordable childcare should enable women to plan to continue in their pre-motherhood jobs and career paths. For those who pre-motherhood have not been able to secure a job offering opportunities for skill and personal development, it is also important for childcare to be available to support them if they seek to make a career change and/or to upskill or retrain. In the UK, access to free childcare has often been tied just to employment status, not for those in education or training.

Beyond childcare, there are other policy changes that could help. Changing practices associated with full-time work, such as unhelpful expectations of long and unsocial hours working by full-timers, could expand the supply of quality part-time jobs as part-time work is difficult where full-timers work extensive unpaid overtime. This greater attention to what is a fair and sustainable load for full-timers may be a means to reduce divisions between full and part-time staff and to open up managerial occupations for part-time work. In this context more part-timers might want to switch back to full-time work and extending rights to request flexible working to rights to request returns to full-time work¹⁴ may provide more protections against becoming trapped on a low progression path. The legislation that is just being implemented from April 2024 in the UK to allow requests for flexible working from day one of employment rather than after six months should also help. However, the legislation could go further to give rights to flexible working, at least for those with care responsibilities, or a presumption that flexible working should be an option, unless there are exceptional grounds that this would not be possible.

The problem of how to promote productive lives for those in variable hours part-time work are even greater. This is not to suggest that these jobs are of limited value. Indeed, many of these services occupations are part of what has come to be known as essential services or the foundational economy. These terms came to the fore under the Covid-19 pandemic when it became clear what jobs were critical for the society to continue to function. The problems lie, however, in the lack of guaranteed or regular hours and also in how the work is valued in the form of wages. There is a need, as Lambert (2020) suggested, to protect employees against some of the cost-reducing but uncertainty-provoking practices within these occupations, not least because these have negative impacts on the health and well-being of employees and their families. Although hourly pay has improved through the raising of the minimum wage, this does not guarantee higher weekly wages. The Living Wage Foundation is now also campaigning for employers to recognise the need for living hours¹⁵, namely guaranteed hours of at least 16 contracted hours that reflect usual hours and four weeks notice of changes to shifts. There is a need for much stronger regulations on guaranteed hours and on predictable schedules with advance notice provided for any changes, together with rights for contractual

¹⁴ There are partial rights to return to full-time hours in France through priority for full-time vacancies and in Germany for parents (Rubery et al., 2022).

¹⁵ Living Wage Foundation 'Living Hours Campaign Launched to Tackle Work Insecurity', 2019, available at: <https://www.livingwage.org.uk/news/living-hours-campaign-launched-tackle-work-insecurity>.

hours to be upgraded to actual hours worked if working longer than contracted hours is a regular feature of a job.

Overall, these proposals suggest the way forward may be towards some convergence in the working time of full and part-time workers, with efforts made to reduce very long hours and to move towards higher guaranteed working hours for part-timers. Such convergence towards the middle ground could have a positive impact on the integration of part-time workers with full-time work, and thereby promote gender equality. Smaller differences in hours worked may reduce coordination problems and less extreme working hours for full-timers may enable more movement between part-time and full-time work over the life course as care responsibilities change. In occupations or sectors where progression opportunities – measured by skill development or by pay – are weak, more attention needs to be paid to providing progression routes that can benefit both full- and part-time workers.

References

- Andrew, A., Bandiera, O., Costa-Dias, M. and Landais, C. (2021) *Women and men at work*. [Working Paper] IFS Deaton Review of Inequalities. Available at: www.ifs.org.uk/inequality/wp-content/uploads/2021/12/IFS-Inequality-Review-women-and-men-at-work.pdf.
- Bardasi, E. and Gornick, J. C. (2008). 'Working for less? Women's part-time wage penalties across countries', *Feminist Economics*, 14(1), pp. 37–72.
- Baron, J. and Kreps, D. (1999). *Strategic Human Resources*. Oxford: Wiley.
- BEIS (2017). *Good work: the Taylor review of modern working practices* <https://www.gov.uk/government/publications/good-work-the-taylor-review-of-modern-working-practices>.
- Blackburn, M.L. (2010). 'The Impact of Internal Migration on Married Couples' Earnings in Britain', *Economica*, 77, pp. 584 – 603.
- Boltz M., Cockx, B., Diaz A.M., and Salas, L.M. (2023). 'How does working-time flexibility affect workers' productivity in a routine job? Evidence from a field experiment', *British Journal of Industrial Relations*, 61(1): pp. 159 – 187.
- Boyle, P., Cooke, T., Halacree, K., and Smith, D. (2003). 'The Effect of Long-Distance Family Migration and Motherhood on Partnered Women's Labour-Market Activity Rates in Great Britain and the USA', *Environment and Planning A: Economy and Space*, 35(12), pp. 2097-2114.
- Britton, J., Dearden, L., van der Erve, L. and Waltmann, B. (2020). *The impact of undergraduate degrees on lifetime earnings* [Working Paper] IFS, ESRC, DoE Available at: https://ifs.org.uk/sites/default/files/output_url_files/R167-The-impact-of-undergraduate-degrees-on-lifetime-earnings.pdf.
- CIPD. (2022). *Zero Hours Contracts: Evolution and current status*. [Working Paper] London: Chartered Institute of Personnel and Development. Available at: https://www.cipd.org/globalassets/media/knowledge/knowledge-hub/reports/zero-hours-contracts-report-aug-2022_tcm18-110465.pdf.
- Clark, W. and Huang, Y. (2003). 'The Life Course and Residential Mobility in British Housing Markets', *Environment and Planning A: Economy and Space*, 35(2): pp. 323 – 339.
- Connolly, S. and Gregory, M. (2008). 'Moving down: Women's part-time work and occupational change in Britain 1991–2001', *The Economic Journal*, 118(526): F52–F76.
- Devicienti, F., E. Grinza, and D. Vannoni. (2015). *The Impact of Part-Time Work on Firm Total Factor Productivity: Evidence from Italy*. IZA Discussion Paper No. 9463. Available at: <https://docs.iza.org/dp9463.pdf>.

- Dex, S. and Shaw, L. (1986). *British and American women at work: do equal opportunities policies matter?* London: Palgrave Macmillan.
- Donnelly, R. (2022). ‘Precarious Work in Midlife: Long-Term Implications for the Health and Mortality of Women and Men’, *Journal of Health and Social Behavior*, 63(1): pp. 142-158. doi: [10.1177/00221465211055090](https://doi.org/10.1177/00221465211055090).
- Dwyer, P., Scullion, L., Jones, K., McNeill, J. and Stewart, AB. (2020). ‘Work, Welfare and Wellbeing? The impacts of welfare conditionality on people with mental health impairments in the UK’, *Social Policy & Administration*, 54: pp. 311–326.
- Elias, P. and Purcell, K. (2004) *Seven Years On: Graduate Careers in a Changing Labour Market*, [Short Report] University of Warwick. Available at: https://warwick.ac.uk/fac/soc/ier/researchthemesoverview/researchprojects/7yrs2/seven_years_on.pdf.
- Etuknwa, A., Daniels, K., and Eib, C. (2019). ‘Sustainable return to work: A systematic review focusing on personal and social factors’, *Journal of Occupational Rehabilitation*, 29(4): pp. 679-700.
- Fagan, C. (2004). Gender and working time in industrialized countries. In: Messenger, J. C. (ed.) *Working time and workers' preferences in industrialized countries: finding the balance*. London: Routledge.
- Forth, J. and Aznar, A.R. (2018). *Productivity in the UK's low-wage industries*, [Working Paper] Joseph Rowntree Foundation. Available at: <https://www.jrf.org.uk/work/productivity-in-the-uks-low-wage-industries>.
- Garnero, A. (2016). *Are part-time workers less productive and underpaid?* [Working Paper] IZA World of Labor. doi: 10.15185/izawol.249.
- Garnero, A., Kampelmann, S., and Rycx, F. (2014). ‘Part-time Work, Wages and Productivity: Evidence from Belgian Matched Panel Data’ *ILR Review: The Journal of Work and Policy*, 67(3): pp. 926 – 954.
- Geist, C. and McManus, P. (2012). ‘Different Reasons, Different Results: Implications of Migration by Gender and Family Status’, *Demography*, 49(1): pp. 197 – 217.
- Golden, L. and Kim, J. (2017). ‘Irregular Work Shifts, Work Schedule Flexibility and Associations with Work–Family Conflict and Work Stress in the United States of America’, *5th Conference of the Regulating for Decent Work Network*. 3 – 5 July 2017. Geneva: International Labour Organization.
- Goldin, C. (2021). *Career & Family: Women's Century-Long Journey Toward Equity*. Princeton: Princeton University Press.
- Gregg, P. and Wadsworth, J. (1996). Mind the Gap Centre for Economic Performance, LSE CEPDP0303. Available at: <https://cep.lse.ac.uk/new/publications/abstract.asp?index=303>.

- Grimshaw, D. and Miozzo, M. (2021). *Human capital and productivity: a call for new interdisciplinary research*. [Working Paper] The Productivity Institute No. 006.
- Grimshaw, D. and Rubery, J. (2007). *Undervaluing women's work*. Working Paper Series No. 53. Manchester: Equal Opportunities Commission. Available at: http://www.njl.nu/uploads/Paper_2007_Jill_Rubery.pdf.
- Grimshaw, D. and Rubery, J. (2015). *The motherhood pay gap: a review of the issues, theory and international evidence*. Conditions of Work and Employment Series, No. 57, Geneva: International Labour Organization.
- Grimshaw, D., Cartwright, J., Keizer, A. and Rubery, J. (2019). 'Market exposure and the labour process: The contradictory dynamics in managing subcontracted services work', *Work, Employment and Society*, 33(1): pp. 76 – 95.
- Grimshaw, D., Johnson, M., Rubery, J., and Keizer, A. (2016). *Reducing Precarious Work. Protective Gaps and the Role of Social Dialogue in Europe*. Manchester: European Work and Employment Research Centre, University of Manchester.
- Herman, E., Rubery J., and Hebson, G. (2021). 'A Case of Employers Never Letting a Good Crisis Go to Waste? An Investigation of How Work Becomes Even More Precarious for Hourly Paid Workers Under Covid', *Industrial Relations Journal*, 52(5): pp. 442–57.
- Kendall, N., Burton, K., Lunt, J., Mellor, N., and Daniels, K. (2015). *Development of an Intervention Toolbox for Common Health Problems in the Workplace*. HSE Books.
- Kesavan, S., Lambert, S., Williams, J. and Pendem, P. (2022). 'Doing Well by Doing Good: Improving Retail Store Performance with Responsible Scheduling Practices at the Gap, Inc.', *Management Science*, 68(11): pp. 7818-7836. doi: 10.1287/mnsc.2021.4291.
- Kossek, E.E. and Ollier-Malaterre, A. (2020). 'Desperately seeking sustainable careers: Redesigning professional jobs for the collaborative crafting of reduced-load work', *Journal of Vocational Behavior*, 117: pp. 1-15. doi: 10.1016/j.jvb.2019.06.003.
- Künn-Nelen, A., A. de Grip, and D. Fouarge. (2013). 'Is part-time employment beneficial for firm productivity?', *Industrial & Labor Relations Review*, 65(5): pp. 1172–1191.
- Lambert, S. (2020). *Fair work schedules for the U.S. economy and society: What's reasonable, feasible, and effective*, Washington Center for Equitable Growth. Available at: <https://equitablegrowth.org/wp-content/uploads/2020/02/Lambert.pdf>.
- Lewchuk, W., Clarke, M., and de Wolff, A. (2008). 'Working without commitments: precarious employment and health', *Work, Employment and Society*, 22(3): pp. 387-406. doi:10.1177/0950017008093477.
- OECD. (2022). PF3.4: Child care support OECD Family Data Base <https://www.oecd.org/els/soc/PF3-4->

- Olsen, W. Gash, V., Kim, S. and Zhang, M. (2018). *The gender pay gap in the UK: evidence from the UKHLS*. [Working Paper] Government Equalities Office. Available at: <https://www.gov.uk/government/publications/the-gender-pay-gap-in-the-uk-evidence-from-the-ukhls>.
- ONS (Office for National Statistics) (2022). 'Earnings and hours worked, all employees: ASHE Table 14.6. Revised edition. Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/occupation4digitsoc2010ashtable14>
- ONS (Office for National Statistics). (2023). 'Annual Population Survey, April 2022 - March 2023'. [data collection]. 2nd Edition. UK Data Service. SN: 9117, doi: 10.5255/UKDA-SN-9117-2.
- Rubery, J. (1998). 'Part-time work: a threat to labour standards?' in O'Reilly, J and Fagan, C. *Part-time Prospects: Part-time Work in Europe, North America and the Pacific Rim*. London: Routledge.
- Rubery, J. (2015). 'Regulating for Gender Equality: A Policy Framework to Support the Universal Caregiver Vision', *Social Politics: International Studies in Gender, State & Society*, 22(4): pp. 513–538, doi: [10.1093/sp/jxv036](https://doi.org/10.1093/sp/jxv036).
- Rubery, J. and Urwin, P. (2011). 'Bringing the employer back in: why social care needs a standard employment relationship', *Human Resource Management Journal*, 21(2): pp. 122–137.
- Rubery, J., Ward K., Grimshaw, D. and Beynon, H. (2005). 'Working Time, Industrial Relations and the Employment Relationship', *Time & Society*, 14(1): pp. 89–111.
- Rubery, J., Grimshaw, D., Hebsen, G. and Ugarte, S. (2015). "'It's All About Time": Time as Contested Terrain in the Management and Experience of Domiciliary Care Work in England', *Human Resource Management*, 54(5): pp. 753–772. doi: 10.1002/hrm.21685.
- Rubery J., Grimshaw D., Keizer A., Johnson M. (2018). 'Challenges and contradictions in the 'normalising' of precarious work', *Work, Employment and Society*, 32(3): pp. 509–527.
- Rubery, J., Grimshaw, D., Méhaut, P., & Weinkopf, C. (2022). 'Dualisation and part-time work in France, Germany and the UK: Accounting for within and between country differences in precarious work', *European Journal of Industrial Relations, OnlineFirst*. doi: [10.1177/09596801221120468](https://doi.org/10.1177/09596801221120468).
- Rubery, J., Blakely, H., Erickson, E. and Felstead, A. (2023). *The Future of Flexible Working*, ReWAGE Evidence Paper University of Warwick. Available here: https://warwick.ac.uk/fac/soc/ier/rewage/news-archive/the_future_of_flexible_working_-_evidence_paper_20230830.pdf
- Self, S. (2005). 'What makes motherhood so expensive? The role of social expectations, interdependence, and coordination failure in explaining lower wages of mothers', *The Journal of Socio-Economics*, 34(6): pp. 850–865.

- Specchia, G. L., and Vandenberghe, V. (2013). 'Is Part-Time Employment a Boon or Bane for Firm Productivity?', [Unpublished Paper], Université de Louvain. Available at: https://perso.uclouvain.be/vincent.vandenberghe/Papers/Part_time_Belgium.pdf.
- Smith, A. and McBride, J. (2023) 'It was doing my head in': Low-paid multiple employment and zero hours work', *British Journal of Industrial Relations*, 61(1): pp. 3–23.
- Supiot, A. (2001). *Beyond Employment: Changes in Work and the Future of Labour Law in Europe*, Oxford: Oxford University Press.
- Thomas, M. (2019). 'Employment, education, and family: Revealing the motives behind internal migration in Great Britain', *Population, Space and Place*. 25(4): pp. 1-11.
- Tilly, C. (1992). 'Dualism in Part-Time Employment', *Industrial Relations*, 31(2): pp. 330-347.
- Waltmann, B. (2022). Sweeping changes to student loans to hit tomorrow's lower-earning graduates [Comment] The IFS. Available at: <https://ifs.org.uk/articles/sweeping-changes-student-loans-hit-tomorrows-lower-earning-graduates> (accessed: 21 January 2024).
- Warren, T. (2004). 'Working part-time: achieving a successful 'work-life' balance?', *British Journal of Sociology*, 55(1): pp. 99-122.
- Warren, T. (2015). 'Work-time underemployment and financial hardship: class inequalities and recession in the UK', *Work, Employment & Society*, 29(2): pp. 191–212.
- Warren, T., and Lyonette, C. (2018). 'Good, Bad and Very Bad Part-time Jobs for Women? Re-examining the Importance of Occupational Class for Job Quality since the 'Great Recession' in Britain', *Work, Employment and Society*, 32(4): pp. 747-767.
- Westwood, A., Sensier, M., and Pike, N. (2021). *Levelling Up, Local Growth and Productivity in England*, [Working paper] The Productivity Institute, University of Manchester.
- Zeytinoglu, I.U., Lillevik, W., Seaton, B., and Moruz, J. (2004). 'Part-time and casual work in retail trade: stress and other factors affecting the workplace', *Relations industrielles*, 59(3): pp. 516-544.
- Zeytinoglu, I.U., Seaton, M.B., Lillevik, W., and Moruz, J. (2005). 'Working in the Margins: Women's Experiences of Stress and Occupational Health Problems in Part-Time and Casual Retail Jobs', *Women & Health*, 41(1): pp. 87-107, doi: [10.1300/J013v41n01_06](https://doi.org/10.1300/J013v41n01_06).
- Zhan, Y., Wang, M., Liu, S. and Shultz, K. S. (2009). 'Bridge employment and retirees' health: A longitudinal investigation', *Journal of Occupational Health Psychology*, 14: pp. 374-389.