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Abstract

This chapter examines the quality of working time within the police service, focusing on one particular dimension of working time, shift extensification. For the police service, demands for operational efficiency make shiftwork and unsocial working hours an expectation. However, extended shifts which are unpredictable are seldom formally recognised. The chapter proposes that, over time, such regular shift extensification leads to degradation in the quality of working time as a result of its consequences for employee work-life balance, wellbeing and health. It reports a study drawing from a survey of 3257 UK police officers and staff to examine the extent to which extended hours are an issue. The chapter presents analysis of 2198 open text comments across the range of occupations in order to enrich the understanding of how working time quality is affected by this form of unplanned shift extensification. The data allows us to reflect on the implications for working time quality in situations where employer-driven demands for short notice flexible scheduling are shifting the adjustment back on employees. It is argued that this pattern is increasingly evident in many front-line occupations in a range of contemporary contexts, including the public sector.

Introduction

For employers, work scheduling which allows labour flexibility is essential given wider trends in employment, such as more globalised production and business services. This means that employers are able to increase, reduce or vary the distribution of working hours according to demand (Lambert, 2008; Rubery, et al., 2005). As highlighted in Chapter 1, employer-led flexibility suggests flexibility which is good for employers without particular concern for employee influence or interests. In his typology of flexibility and stability, Jonsson (2007) also differentiates between the contrasting positions of employers and employees in the desirability of flexibility. With regard to working time, employer-desired variability imposed on employees may include requiring employees to work overtime or unsocial hours, such as night or weekend working, and other non-standard working arrangements which have increased in prominence over the last decade; e.g., reduced or zero hours contracts, flexitime, shiftworking, or compressed hours (Bewley, et al., 2014).

This chapter focuses on the unpredictable or unstable aspects of working time which are driven by employers' operational needs (see also Jonsson's (2007, p. 36 discussion of flexibility in terms of situations where employees are flexible for the employer). It has been argued that this form of unpredictable working time has not been sufficiently recognised relative to other working time arrangements (Henly & Lambert, 2014). Extended working hours which result from variable (Nabe-Nielsen et al., 2012) or unpredictable (Henly and Lambert, 2014) work demands direct attention to employees' daily experience of shifts. Arguably, unplanned variations in employee working time are a much more common occurrence than has been acknowledged in literature on work scheduling or shiftwork more generally. Lambert (2008) warns that some data capture of fluctuating working hours will inevitably underestimate its prevalence. Unlike paid overtime, for example, how work is distributed in a typical working shift (e.g., taking important customer calls at the end of one's shift) or dealing with uncertain capacity (e.g., covering for staff sickness absence) is seldom formally logged (Van den Bergh et al, 2013).

Such discrepancies between hours rostered and actual hours caused by unplanned variation means that employees often face having little control over their work schedules and hence experience instability, regardless of formal shift rosters. This is likely to impact job quality in a number of ways. It has been well established that control over working time allows employees to more effectively manage the boundaries between work and life (Grosswald, 2004). Work time control also aids sleep and recovery from work, reduces exhaustion and the risk of health problems (Kattenbach, et al., 2010; Nijp et al., 2012), and generally increases satisfaction with one's work schedule (Swanberg et al., 2011). Lack of control within a single shift may have few knock-on effects; however, persistent absence of control over shift start, duration or finish may lead to a longer term degradation of the quality of both work and non-work life.

We refer to this instability in daily working hours as shift extensification. The chapter aims (1) to establish the degree to which shift extensification impacts one particular public service context – the police – and (2) to conceptualise the processes through which it may create cumulative intensity in working time over a shift pattern, with consequences for employees' personal lives. We present primarily qualitative data from a survey of four UK police services which spanned a number of occupations, including officers and staff, thus allowing us to explore two policing environments. While officers may face greater risks in their daily duties, civilian working environments in the police are also facing greater demands given increasingly squeezed resources. In this public sector context, the recent climate of austerity has had a significant impact on staffing levels (HMIC, 2014; Loveday, 2015). Arguably, this also creates a climate of potentially greater demand from management for working time flexibility from employees for whom shifts may be becoming more unstable. There have been relatively few research studies focusing on the civilian

police workforce, despite indications that policing will increasingly depend on civilian roles given the resourcing challenges in meeting rising public demand (Flanagan, 2008). Our analysis of the police context also has relevance for any front-line emergency, health and service settings, where the compatibility of service demands and labour supply may make the occurrence of shift extensification a frequent reality for many employees.

The chapter first reviews our conceptualisation of shift extensification as a dimension of work time quality before detailing further issues of working time and shifts in the police context. We then present our qualitative analysis of open text comments from a large-scale survey of four UK police services. Our data presents descriptive analysis of the extent to which shift extensification is evident for these police respondents and exploratory analysis of how they represent this extensification and its impact on their lives.

Understanding quality of working time through shift extensification

Extensification, or ‘overflowing work’, refers generally to the spillover of work from one domain to another, most commonly from work to non-work life. The best known applications of this concept have explored the effects on individuals and households in terms of work-life balance. We apply the concept of overflowing work to the formally defined shift, focusing on the degree to which shifts extend in terms of duration. Extended hours may apply to a single shift, as in work overflowing beyond the formal boundaries of the shift’s completion, or the need to work overtime.

The importance of extended shifts for how employees experience working time is indicated in one recent study, where short notice was identified as the most problematic aspect of working hours controlling for a range of demographic factors (Åkerstedt & Kecklund, 2017). Implicit in such findings is the suggestion that employees dislike the instability and the lack of control in determining their working hours, and how they manage the boundary between work and their non-work lives. When such unplanned shift extensification occurs often, there is likely to be cumulative knock-on effects resulting from reduced control over the work-life interface (Grosswald, 2004).

Generally, employee control over working time is recognised as an important indicator of job quality (Green, et al., 2013; Muñoz de Bustillo et al. (2011). This includes employee time and schedule control, for example, over daily hours or time off (Albrecht, Kecklund, Tucker, & Leineweber, 2016), and the notice given by employers when arrangements are changed (Green, et al., 2013).

Work time control has also been associated with a range of employee attitudinal and health outcomes (see Theorell (2010) and Harma and Kecklund (2010) for an overview). Findings suggest proximal effects on work-life boundary management (affecting work-family conflict or the experience of rest/leisure time) and attitudes regarding working hours (Golden, Henly, Lambert, 2013; Swanberg et al., 2011), as well as more distal and longer term effects on sleep, recovery from shifts, and subjective and actual health complaints. To illustrate, it is generally well accepted that work time control reduces work-non-work life conflict and exhaustion (Nijp et al., 2012; Kattenbach, et al., 2011); leads to more satisfaction with leisure time (Costa, et al., 2006); aids sleep and recovery from work (Åkerstedt, et al., 2002); and reduces the risk of sickness absence and health problems (Ala-Mursula, et al., 2004; Takahashi, et al., 2012). The ability to effectively manage one’s work-life boundary relates directly to the need for recovery time; for example, at least 12 hours of rest between shifts is recommended (Pallesen et al 2010) as well as working forward-rotating shifts and fewer night and weekend shifts (Bambra et al, 2007).

Unpredictable or short notice changes to hours have been associated with worrying effects on health. These indicate a link between short notice changes to hours and higher prevalence of subjective health complaints, such as anxiety and heart disease (Costa et al, 2004), sleepiness and fatigue (Jansen & Nachreiner, 2004), and adverse mental health, especially in low reward situations (Van Der Hulst & Geurts, 2001). Work-time influence also buffers the adverse effects of shiftwork by increasing predictability (Nabe-Nielsen et al, 2012). Assuming the benefits from recovery time and maintaining good health, organisations are also thought to benefit by allowing their employees greater control over their working time, with lower absence or turnover rates in the longer term (Baltes, et al., 1999).

Flexible working arrangements which offer employees some choice over core hours and start/finish times have become more prevalent, most commonly through reduced hours and flexitime (Åkerstedt & Kecklund, 2017; Kerkhofs et al., 2010; van Wanrooy, et al., 2013). In principle, the offer of flexible working should allow employees to negotiate a balance between work and non-work activities to meet their lifestyle preferences (Jansen & Nachreiner, 2004). Many jobs, however, are not conducive to employee-led flexibility as they require continuous and overlapping shifts, or depend on rigid formalised shift structures. The primary constraint to flexible working provision, as cited by 53 per cent of managers in a national UK survey, is the nature of work or operating hours (van Wanrooy, et al., 2013). Such constraints also may particularly affect lower-wage, front-line positions (Lambert, 2008, Swanberg, et al, 2011).

Moreover, we argue that shift extensification applies just as much to understanding working time quality for those on flexible working arrangements. Although these employees have greater putative control, the working environment often means such control is not attainable. Using Jonsson's (2007) typology, employees may derive some stability from knowing their working hours on a flexible working arrangement but still may experience instability as a result of a different element of their working time – in the present case, extended shifts. In some contexts, such as policing (Dick, 2009), the culture may mean that managers are reluctant to meet employee requests for flexibility (e.g., reduced hours) and employee control over work schedules is sacrificed for organisational goals. Similarly, employee negotiated work scheduling, referred to as self-rostering, often fails or is unpopular due to the need to accommodate other employees' demands (Ingre et al, 2012). Again, therefore, apparent employee influence over work scheduling is constrained by employer needs or the schedules of co-workers.

Working time in the British police service

Policing has been found to be amongst the most stressful occupations. Police officers face significant operational stressors, such as risk of violence or injury (Houdmont et al., 2012; Hall et al., 2010), while police staff are experiencing growing work demands as a result of resourcing issues (see for example, the case of police call handlers (Lumsden & Black, 2017)). Adding to this, the current context of austerity in the UK has led to reforms in police management which are driven by doing 'more with less' (HMIC, 2014; Loveday, 2015; Winsor, 2012). This often means an implicit requirement for willingness to work longer hours or beyond the rostered shift. For both officers and staff, therefore, the climate of 'austerity policing' (Brogden & Ellison, 2012) means that shift extensification may be a defining feature of work.

Long working hours are not unexpected in police work. Hewlett and Luce's (2006) account of 'extreme work' includes a minimum of 60 hours per week at work and time-based demands, including 'unpredictable flows of work'. They argue that for some professions long hours are a 'badge of honour'. In the police, Turnbull and Wass' (2015) examination of extreme work highlights long hours as a vehicle for meeting operational demands. Although dealing with challenging people, situations, and environments is mainly accepted as part of policing,

participants in Turnbull and Wass' study also described the extensification of working time as unacceptable, thereby suggesting some resistance to the normalisation of such work scheduling practices.

Within the UK, police shift patterns are informed by the European Working Time Directive (2003/88/EC) (see for example the guidance of the Police Federation, 2016). With respect to hours of work, the Directive recommends a limit of weekly working hours to an average of 48; a minimum daily rest period of 11 consecutive hours in every 24 hours; and a minimum weekly uninterrupted rest period of 24 hours. It also provides extra protection for night workers (i.e., average working hours must not exceed 8 hours per 24-hour period and night workers must not perform heavy or dangerous work for longer than 8 hours in any 24-hour period). In addition, there is clear guidance on best practice provided by the Police Regulations 2003 on adequate notice for bringing forward a rostered shift (notice should be provided at least 8 hours before) or providing compensation for duty on a rostered rest day. All of these regulations, however, are subject to 'exigencies of duty' (i.e., when a pressing demand necessitates a change of duty roster) and there has been an acknowledged excessive use of night shifts and limited availability of 11 hours of rest between shifts within the police service. The need for recovery between shifts through leisure activity is especially important for police (Iwasaki, et al., 2005). Kinman, et al. (2012), in a study of one UK police force, found that unpredictable demands interfere with recovery which could take a number of forms; for example, spending time with family and friends or taking exercise. These authors interpreted their findings as showing that in the absence of time for recovery between shifts, strain-based work-life conflict was more likely, with implications for wellbeing and health, and recommended interventions to provide advice on implementing recovery strategies.

The recommended shift pattern within the UK police is the Variable Shift Arrangement (VSA). In a review of rostering and deployment, the UK Home Office (2004) concluded that a VSA was the preferable pattern on the grounds of demand-supply concerns during periods of intense activity. This was in contrast to the 8-hours fixed shift (called the Regulation Shift Pattern) which was considered insufficient for meeting increasing demands for flexibility. VSAs were to be viewed as planning principles for three month duty rosters using shifts of greater than 8 hours. They offered managers an opportunity to match service demand and supply and at the same time, address police officer concerns regarding working a regulated shift pattern with no flexibility. In principle, therefore, the VSA represented demand-led flexibility while still providing employees with a balance between flexibility and predictability or stability (due to the three month duty roster). In a sign of increasing stringency, though, the recent Winsor (2012) review has allowed Chief Constables greater control in implementing shift arrangements, thus yielding further towards an employer-led flexibility model.

It is also true that most forces also operate a mixture of part-time, flexible and compressed hours. Flexible working, including job-sharing, term-time contracts, annualised hours, and more flexible start and finish times, is regarded as 'best practice', and has been shown as effective in reducing sickness absence in British police services (Hayday, Broughton & Tyers, 2007). Nevertheless, this is negotiated individually between the officer and their supervisor, with some forces requiring a percentage of the flexible hours during unsocial hours (evenings/weekends and nights) (Home Office, 2007). In addition, as noted previously, the culture of policing has meant that such requests are often sacrificed in order to meet operational goals (Dick, 2009).

Research questions

For many front-line occupations, non-standard working times, such as night work or weekend working, are accepted working norms. However, unexpected extensions to shifts are seldom

formally acknowledged, nor studied, even though the consequences of unpredictability and low employee control over work schedules can be significant. The aim in this chapter was to explore specifically the concept of unplanned shift extensification. Our first research question examines a number of indicators of shift extensification based on the recommendations of the European Working Time Directive to determine the extent to which this is an issue for different police occupations. Shift extensification defined in this way implies that the extended hours worked are unexpected. Paid overtime, in contrast, would be considered planned shift extensification and is not the primary concern of this chapter. Our first question is:

1. To what extent does shift extensification exist for police officers and staff?

A second research aim is to elaborate on how individuals experience shift extensification and particularly how they report that it affects working and private life. Our earlier arguments propose that persistent experiences of unpredictable extended hours have cumulative effects, for example, on time for recovery between shifts. Creeping extensification at the fringes of shifts (i.e., both at the end and rolling over into the recovery time before the beginning of the next) means that even employees on a fixed or rostered shift pattern may experience low work time control and hence poor working time quality. A second research question, therefore, is as follows.

2. In what ways does shift extensification impact experiences of time quality in both work and non-work lives?

Methodology

Data and sample

Data are drawn from a survey of police officers and staff in four UK police forces, one large urban/suburban force and three smaller rural/suburban forces. An electronic survey, with two email reminders, was administered in 2011 via Force email systems and returned on a secure web server. Paper versions were also available. Response rates for police officers varied from 45 per cent for one of the smaller forces to a mean of 27 per cent for the other three; for police staff, there was a much lower response rate of 15 per cent.

As a percentage of the target population of all officers in the four police forces, the officers' response rate is typical for online surveys (Sheehan, 2001), and is likely affected by the length of the survey and the researchers not having direct access to the internal email systems to conduct further, personalised follow-ups with individuals. The low response rate for police staff may be due to the greater fragmentation of occupations which these represent, the lower salience of a survey on shiftwork and safety (as the larger project was advertised) for this group, and again, the reliance on organisational gatekeepers to distribute the survey.

For police staff, respondents were asked to indicate their job title from which we formed four occupational groups - Police Community Service Officers, control room staff, operational policing and support roles. Police Community Service Officers are uniformed civilian members of police support staff who may patrol with constables but who have limited powers. They are also contracted to work a greater number of hours than constables. Control room staff (which includes call handlers, controllers, and dispatchers) deal with judging priority level of calls, vulnerable callers and safeguarding of evidence, and are considered the first line in the investigation process (HMIC, 2017). Increasing call numbers and fewer resources (HMIC, 2014) have meant this workforce are facing particular pressures meeting their local call handling targets. Police officers may also be brought in to manage calls where there are staff shortages to meet demand. Therefore, the control room is an intensified work environment with pressures on staffing (Lumsden & Black, 2017). Operational policing represents a range of roles, including police custodian, crime scene investigator, and research/intelligence officers. Support roles represent administrative, business or strategic development roles.

The respondent profiles did not indicate any obvious bias suggesting representativeness for these forces. For example, women comprise 23 per cent of officers in England and Wales and a lower proportion are PCSOs than other police staff roles (Flanagan, 2008). Both of these are broadly in line with our proportions (see Table 1).

We focus only on respondents on two formal shift arrangements - Variable Shift Arrangements (VSAs) and Regulation Shift Pattern (RSP; 8-hours fixed shift). VSAs allow greater management-driven flexibility than fixed shifts to accommodate demand while still in principle allowing some predictability for employees since they are based on three month duty rosters.

The final sample size was 3257, with the majority (57%) police constables (N=1843), 19% police sergeants and inspectors (N=601) and 25% police staff (N=813) (Table 1).

TABLE 1 HERE

Survey measures

Working pattern variables. Shift pattern was represented by either the VSA or RSP. The predominant shift pattern was the VSA for both officers and staff, although staff support roles had a small majority working RSPs (Table 2). *Unsocial hours* were measured by two variables: (a) night worker (0/1), defined as being rostered for at least three hours between 24:00 and 03:00 and (b) the number of weekend days usually worked each month (0-8). In addition, respondents were asked if they worked *overtime* and how many hours/week on average (0 'none', 1 '<4 hours/week', 2 '4 or more hours per week'). We also asked if they worked on a *Flexible Working Arrangement* (0/1, 1=yes). For officers, flexible working referred to particular types of requests for a reasonable adjustment to hours (e.g., Time Off In Lieu, shift adjustments such as early start to accommodate family demands or late shifts to accommodate a disability; e.g., arthritis which may be worse in the morning).

Shift extensification variables. Four questions asked about the extent to which the shift pattern deviated from EU Working Time Regulations (e.g., Åkerstedt & Kecklund, 2005). These measured frequency of experiencing (a) at least four night shifts in a row; (b) <11 hours rest between tours of duty; (c) working shifts of >10 hours; and (d) not having one day off between work periods (all measured on a scale of 1 'almost never', 2 'a few times per year', 3 'a few times per month', 4 'several times per month'). An additional two questions asked about being detained at the end of the rostered shift: times per week on average detained at end of shift (0 'never', 1 '1/week', 2 '2/week', 3 '3-7/week'); and minutes detained on average at end of shift (0 'none', 1 'up to 30 mins', 2 '30-60 minutes', 3 '60-90 minutes', 4 '90-120 minutes', 5 'over 120 minutes').

Biographical and job variables. The survey also provided measures of: the number of months on the shift pattern; tenure with police (measured on a four-point ordinal scale (1 'less than 5 years', 2 '5-9 years', 3 '10-14 years', 4 '15 years or more'; age (in years); gender (0/1, 1=female); one or more dependent relatives (0/1); and whether respondents were married/cohabiting (0/1). Each of these variables has been shown to impact responses to shiftwork and working unsocial hours (see review by Tucker and Folkard, 2012). We include these only to gain a clearer picture of the respondent profile.

Qualitative data. Each survey offered the opportunity for open ended comments about each individual's experiences of shiftwork. This option was taken up by a total of 2198 respondents - 1669 officers (68% of all officer respondents) and 529 police staff (65% of all staff respondents).

This data was used to address Research Question 2 on how shift extensification shapes the quality of working time. We included all available respondents in our analysis.

Analysis

The analysis of 2198 open text comments (1669 from officers and 529 from police staff) used an open coding system, although explicitly sought to identify references to two themes particularly: (a) different forms of unplanned extensions to shifts and their effects on individuals' work-life boundary and (b) the role played by management in shift extensification. Table 3 provides a breakdown of terms referenced and frequencies.

INSERT TABLE 2 HERE

INSERT TABLE 3 HERE

Findings

Research Question 1: evidence of shift extensification

Table 2 shows the profile of the sample with respect to working patterns and shift extensification. Deviation from the recommendations of the European Working Time Directive was most common amongst constables and sergeants/inspectors, although control room staff also show high proportions 'sometimes' or 'often' working four nights in a row. A majority of officers 'sometimes' or 'often' work shifts of more than 10 hours. Across both officers and police staff, 60 per cent or more seldom have one day off between work periods. This figure was highest amongst control room staff (74 per cent) and operational policing staff (68 per cent).

Generally, officers are more likely to be detained at the end of their shifts – only 23 and 21 per cent of constables and sergeants/inspectors, respectively say they are never detained while over 70 per cent of police staff overall indicate this. Most likely staff to be detained are those in operational policing. When asked the number of times in one week they are typically detained, officers report more days per week than staff with an average of 1.4 and 1.8 days for constables and sergeants/inspectors, respectively. When this is examined in more detail, 40 and 30 per cent of constables and sergeants/inspectors, respectively, indicated about once per week and 25 and 42 per cent, respectively 2-3 times per week, suggesting that it is likely to be part of an average working week for at least 70 per cent of officers. Senior officers also seem to be detained more often than constables. The majority of officers indicate being detained on average between 30-60 minutes after their formal shift end, although 20 per cent of constables indicated over 90 minutes on average.

Unsocial hours are common for officers, control room staff and those in operational policing, who are more likely to work nights. Weekend working is common across all occupations. FWAs are used in approximately one-third of all roles and more (42%) for those in support roles. Overtime is more common amongst officers and control room staff.

Research Question 2: Shift extensification and time quality

The nature of shift extensification

The open text comments asking respondents to reflect on their experience of shiftwork, whether this spanned unsocial hours or not, provided an insight into how shift extensification is experienced. As suggested by the survey data, police officers were more affected by these examples of unplanned extended hours, but some police staff were also affected, notably, in the

front-line roles of the control room and operational policing, where presumably work demands can be unpredictable.

In respondents' comments, extensification was shown to be either integral to the shift pattern itself or an unintended consequence of the need to meet operational demands. In the former case of actual shift patterns creating extensification, common examples were flexible start and finish times which stretch the shift into rest days, and frequent but shorter working days resulting in fewer rest days ('quick change overs'). This includes increased travel time, thus further limiting non-work time. From the open text comments, a total of 603 officers (36%) and 71 Staff (13%) described these various types of extensification, although there were nearly 300 more individual references to them (where one respondent perhaps described multiple examples). Our evidence that shift extensification was more of an issue for officers than most police staff (Table 2) is consistent with their being relatively fewer comments from staff than officers. A significant contributor to these frequencies was the reduction of rest days because of changes to shifts, substitution with training days, or, more commonly, working a night shift into the beginning of the rest day (hence quick change overs – when one of the rest days is not a complete one).

The following quotation illustrates in a concrete way how changes to shifts are implemented despite the specified Variable Shift Arrangements (VSAs) which set out shift patterns weeks in advance. VSAs may only be changed in accordance with the workforce agreement (Police Federation, 2016) although senior officers can make demand-led changes due to 'exigency of duty'. This instability in hours has a knock-on effect across a shift pattern and rostered rest days.

My shift pattern is basically a rest day pattern; over 50% of my shifts are regularly changed and these changes often do not comply with VSA protocol e.g. from a 0800-1600 shift to 1600-0000 shift, this is done with little notice and with utter disregard for family responsibilities. (Sergeant, Roads Policing, VSA, works nights, Ref 2345)

The survey findings showed police officer shifts were more likely to deviate from the recommendations of the European Working Time Directive. The following officers illustrate the range of issues raised with the formal shift patterns, even when their formal shift pattern was the fixed 8-hour Regulated Shift Pattern (RSP) rather than the VSA, and officers were not formally rostered as night workers (defined as being rostered for at least three hours between 24:00 and 03:00).

A new shift pattern has been implemented and this has led to a whole rest day being removed for a training day and given back the hours spread over the 5 week pattern. This has led to almost never getting away on time and one rest day in between shifts every 5 weeks. (*Officer, VSA does not work nights Ref 1311*)

Quick change overs and single days off are truly soul destroying! Whereas a 2 or 3 day rest period gives you time to decompress and spend quality time with your family. (*Officer, VSA does not work nights, Ref 1224*)

The current shift pattern that we work which has night shifts into rest days and morning shifts after rest days affects the quality of time off. The shift pattern also provides only one weekend in five off which is not frequent enough and generally brings the feeling of constantly being in work. (*Officer, RSP works nights, 3025*)

These quick change overs and additional training days are, in some cases, examples of actual increases in working time. In other cases, they reflect a problem of working time distribution or spacing, such that hours are bundled together. This impedes the availability and quality of personal time. These effects intensify the experience of working time arrangements, either through

extended single periods of working time in a shift pattern, or through the pervading effects of related time costs (i.e. the increased need for travel time and recovery time).

The second set of scheduling characteristics are not structural to the design of the shift patterns, but are consequences of operational demands. Here, working time is extended by unpaid overtime, variations or deviations to the published shift pattern, being called into court, and being on call. In this one illustration, the unpredictable demands of the job take over personal lives.

As the father of two young children under the age of three and a partner that is also in the police force we get 1 day off together in 8 weeks, the last day we were due to have there was a murder and I worked it and my rest days so we have had one day off together in 16 weeks; how can that be good for family life; we run our lives by text message never knowing what this effect may have on our children, shifts wreck everybody's life. (*Officer, VSA does not work nights, Ref 1282*)

Unpredictability which restricts the ability to plan was noted particularly, although not exclusively, by those who have children and illustrates further consequences in one's private life. Both police staff and officers reported feeling pressure to overcompensate, at personal cost. For example, they talked about making 'spare time go further', juggling social life with family time and getting less sleep. Child care arrangements and rest days would suffer as a result of changing shifts at short notice, especially for particular roles (e.g., proactive intelligence). The following two examples indicate how decision making and planning are directly affected adversely by shift instability, leading to a lack of flexibility for the employee.

Particularly where you don't have a regular weekday off. If your only childcare option is a childminder or nursery you will have to pay full-time (5 days per week) regardless of whether you need that or not because their business model doesn't allow for the flexibility you need as a shift worker and the changes in weekday rest days. They want to be able to 'sell' that one day a week to someone else and this is obviously much easier to do if they can guarantee a particular day of the week. (*Staff, RSP does not work nights, Ref 852*)

It is not the shift work, we only know now 90 days in advance what shift we are likely to be working and that can be narrowed down to a shift change up to 30 days prior to working it so childcare, and leisure activities and making doctors' appointments etc. are getting harder to do (*Staff, VSA nights, Ref 519*)

It seems that one effect of unpredictable working hours is to over-allocate time to work in the planning of family activities and childcare. We interpret this as a form of extensification as it has the effect of suspending non-work life or not allowing what is formally allocated as recovery time. The illustrations above indicate that this occurs for both officers and staff, and regardless of whether shifts span unsocial hours or not. This extensification into non-work life is examined now in more detail.

Personal life and recovery

Beyond the family structure, many comments described how unpredictable shift extensification made any activity which requires time coordination with others precarious. For example, involvement in family occasions becomes challenging, and individuals are often deemed unreliable by their families, or even left out; one respondent said that their family 'no longer extended invitations' to them for family functions. These adjustments to personal activities as a result of unpredictable working hours created a form of paralysis in private life, especially during the life of a shift rotation, as illustrated by the following call handler.

Family and friends have eventually got used to my shift pattern, initially not knowing when I was working one day from the next, phone calls at 1100 am on a Saturday morning "are you

coming to the rugby today", no I've been on nights I'm in bed, used to be the reply. But it appears over time that everyone has got used to them. The shifts did take time to adjust to, coming from working a 9-5 Monday to Friday job to the shifts I'm on now. Sometimes it feels there's no time left in the day to do anything particularly on late shifts (1100hrs - 2100hrs), can't get anything done in the morning, and by the time you finish at 2100hrs you're normally too knackered to do anything, even eating your tea's a task. Then we get two days off after a set of four late's, the first one normally used for recovery from the shifts the second one seems wasted as most people will be in bed ready for the 7 o'clock start the following day. (*Staff, Command and Control Radio Operator, VSA nights, Ref 1128*)

There were many examples of shift extensification rendering personal time useless because of the effects of tiredness. Fatigue and recovery time penetrated personal time, and this time was therefore seen as unavailable to self or family. In addition to 382 respondents commenting about rest days, 438 officers (26% of comments) and 103 staff (20% of comments) mentioned tiredness affecting their non-work life, or what might be classified as work-related fatigue. 'Joke' rest days were frequently mentioned, perhaps where a sequence of night shifts which would mean less sleeping hours would lead to spending most of one's rest day asleep. The cumulative effect of shifts on rest days is captured the two examples below.

I tend to find that it takes me the day off to recover from the early shifts then I am straight back on the lates and again recovering on the following two days. I am also feeling that tired under the 9 week shift pattern that I have been taking leave to recover and spend time with family - this then has a knock on affect when planning a family holiday. (*Constable, VSA does not work nights, Ref 847*)

Working nights into rest days is difficult, especially when family and friends think that you're on 'days off'. This means trying to go to bed on the first 'rest' day at say 11pm, which is 9 hours earlier than the previous (or same as it is) day... As most of the rest days include working into them the actual rest hours are reduced... I've spoken with the occupational health unit who tell me that there are 'worse shift patterns'... I've expressed my concerns with senior management (Supt) and told him directly that I feel that the current shift pattern is 'a joke'. (*Constable, Firearms, VSA works nights, Ref 3647*)

The value of high quality personal time was increased because it was perceived to be elusive, thus compelling respondents to 'make the most' of it by squeezing in non-work activities and so intensifying home life. This, in turn, resulted in less rest time.

Fatigue plays a big part in this, which is the direct result of shift work. Or, as the case is with me, you then find that you try to do too much so that you can meet as many commitments as possible. This results in actually getting less sleep and being busier during your rest days than you are during a shift cycle! (*Constable, VSA works nights, Ref 388/94*)

This data suggests that the lack of control over scheduling goes beyond the effects of shiftwork or unsocial hours in the consequences for non-work life. Shift extensification is indeed a feature of many police officers' and staff working life. This not only increases time worked, but impacts the efficiency and quality of personal time and recovery.

Employer-led 'regular uncertainty'

Many attributed the work-life conflict resulting from shift extensification to management. Some respondents considered working time arrangements as an expression of lack of care from management – essentially flexibility for management at the expense of instability for employees (175 references (11% of comments) from officers and 18 (3% of comments) from staff). In these

descriptions, respondents appraised how much employers are caring and considerate towards employees (four individuals referred to them as ‘the powers that be’), and the extent to which these ‘powers’ prioritise service delivery and performance metrics over employees and their wellbeing. Some respondents interpreted the offering of work-life balance as policy rhetoric to uphold the image of the service rather than genuine empathy for employees’ needs.

The policy would like you to believe there is a work/life balance - this is not the case - my family life has suffered and I have missed many important events due to the lack of understanding from my superiors and no work/life balance. (*Staff, Control Room, Communications Officer, VSA works nights, Ref 440/3561*)

The Police Service makes considerable effort to portray a caring attitude towards their officers and quotes the mantra of work life balance. In reality the job needs doing. Officers on section are able to hand over the jobs but within CID there is no one to hand it to so we can go home at a reasonable time. As a result we stay on until the job is dealt with.... The public are not allowed to see how cost cutting will effect the service provided. The service is sinking and no one wants to say anything. (*Officer, Roads Policing, VSA does not work nights, Ref 1317/1706*)

Some described the general unrest and negative reactions to management’s apparent prioritisation of service over employee welfare, often extending working time into rest days.

Whilst working in a core policing unit on standard 8-4 day shifts the demands of supervision mean the regular short notice change of duties. Scant regard is paid to personal requirements and contractual boundaries. There is an ‘if you don’t like it then leave’ attitude from senior supervisors. Whilst it is appreciated that operational matters have priority the regular uncertainty is at times depressing. (*Staff, Investigation Support Officer, Serious and Organised Crime Group, RSP does not work nights, Ref 811/1287*)

The problem is when management dictate change of shifts. It impacts not just on me but reverberates around partner, children, brother, mother and friends. I have had one very embarrassing experience where I had to let people down due to deviation of shifts. This has left a bitter taste - it impacted badly and I was shamed. As management have the upper hand due to cuts at this time a ‘management by fear’ culture is starting to take hold. (*Staff, Call Handler, VSA works nights, Ref 379/2324*)

Acceptance

Finally, it should be acknowledged that a significant number of comments accepted that shiftworking is an expectation of policing which employees, and even family members, are willing to meet at personal cost. The following quotation illustrates these sentiments.

I have been a police officer for 22 years and shift work has been an important part of my working life whilst doing this job. I have found that supervision have been flexible in their dealings with staff when it comes to family issues over shifts, so in that respect the balance has always been good. It is important to remember we have joined a profession where the demands and expectations are high and the requirements for ALL officers to be able to work 24/7 providing good and adequate service to the public. I've never forgotten that and my family except [accept] that the demands the service expect from me. (*Constable, Roads Policing, VSA does not work nights, Ref 1225/1618*)

There were also many respondents who went further and, despite potential negative effects on personal life, protected the professional identity of the police service as hard working and stoic. These perceptions support the notion of policing as extreme work (Hewlett and Luce, 2006), where long and flexible hours to meet service demands, regardless of the inevitable instability for

employees, are a normative expectation. These attitudes are reflected in the following two examples.

Depending on which week of the fixed pattern, sometimes there is enough time to balance work and home but mainly it is difficult. But that's the job. With the restrictions on budget and overtime, on occasion now you are expected to work without getting paid the extra time it takes to complete jobs... You just have to do what it takes and it is expected when you join this type of work. (*Constable, CID, VSA does not work nights, Ref 1344*)

Shiftwork isn't great, but I knew what it was going to be like before I joined the Police. We are a 24 hour service and we get a good pension because we know we are going to die 5 yrs earlier on average because of shift work. It affects my life in as much as I can't always plan things because I know, being a Detective in CID, if an incident happens then I will be late home because the nature of the job is that you stay with an investigation or a prisoner until you have finished. That's the job and that's the way it will always be. Being in the police is a vocation and a way of life, too many people join expecting it to be a 9-5 job and whinging and moaning if they have to stay half an hour over their shift. (*Constable, CID, VSA does not work nights, Ref 2035*)

Discussion

As indicated in the final quotation above, it could be argued that the experience of shift extensification is a personal one and as such cannot be assumed to be a new type of job stressor, with implications for job quality, impacting front-line work like policing. In this chapter, we have argued that shift extensification represents instability for the employee which often goes unrecognised and unmeasured, and have tried to conceptualise how this takes form and impacts employee lives. Our chosen empirical context is police work where a long hours culture is often accepted as the norm (Turnball & Wass, 2015). In the UK, as in other countries, policing also has been exposed to significant external pressures, most notably the effects of budget cuts following the 2008-9 economic and financial crisis, which have led some to describe current management systems as 'austerity policing' (Brogden & Ellison, 2011). These pressures, as in other similar contexts, make employer-led demands for flexibility which require adjustments to employee work schedules more likely, regardless of the consequences for non-work life.

The chapter reports on evidence from police officers and staff in four UK police services. The findings suggest that unplanned extensions to formal shifts are a feature of work for most police officers and some staff, such as call handlers and those in operational policing roles. Elsewhere, we reported evidence for the effects of such unpredictability in working time on police officers' work-life conflict and perceived stress and, in turn, sleep and self-reported health (Scholarios, Hesselgreaves, & Pratt, 2017). The effects in the latter study were shown to go beyond the effects of working unsocial hours. The qualitative data which we present in this chapter demonstrates a number of forms of shift extensification and shows complex effects on employees' lives generated by employer-led flexibility and the experience of instability for employee. It allows us to understand the nature of shift extensification better. Most notably, the comments made by respondents themselves demonstrate the mechanisms through which extended hours and unpredictable shift patterns intensify non-work life and contribute to negative wellbeing and health outcomes as demonstrated in Scholarios, et al (2017).

By conceptualising shift extensification in this way, we further understanding in several ways. Firstly, it allows us to consider working time quality beyond the definitions of unsociable hours (night working and weekend working). The comments from officers and staff spanned night workers and those not rostered to work at night, and different roles and shifts. Our approach adds two additional elements to the problems usually associated with working unsocial hours. The first

is that we should be aware of extended working time as an integral part of daily work scheduling and each shift, in addition to other types employer-driven flexibility such as the effects of overtime, being on-call, or unpaid hours. The second element refers to those areas of life that are controlled by working time, but are not directly measured as time *at* work (for example, journey time and recovery time). By aiming to conceptualise the ‘fringes’ of shifts – the beginning or end of a rostered shift, and the overlap with non-working time across a shift pattern - we extend the notion of how working time quality is experienced. Capturing a similar notion, Kecklund, Sallinen, and Axelsson (2016) have discussed some of the factors that limit sleep during off-duty time, and include commuting, eating, domestic, and social responsibilities. They emphasise the importance of timing of non-work duties among shiftworkers to maintaining sufficient sleep. In our study, the examination of some of these non-work aspects and their timing, highlights how working time, and time committed to activities like commuting and sleeping *because* of shiftwork, can dictate many other areas of life. They restrict engagement with life activities outside of work but could still be considered elements of extended worktime (what we have labelled shift extensification) because they are connected to working time and do not contribute to non-work time; indeed they limit it.

Secondly, the findings develop our understanding of shiftworkers’ experiences of working time, by offering qualitative descriptions of features which are disruptive. Many of these features are evident in working time research; ‘quick returns’ (defined as < 11 hours; the minimum inter-shift interval by the European Working Time Directive), lacking influence over working hours, long working hours, being frequently on-call, and lacking employee-led flexibility (Tucker, et al., 2013). Our study examines how these disruptive features serve to extend and intensify working hours, and reduce the recovery opportunities. Thus, the findings indicate the undermining of recovery time through shift design, consistent with other authors (e.g. Beckers et al., 2012; Kecklund, Sallinen, & Axelsson, 2016). Sallinen and Kecklund (2010) also noted this effect, irrespective of shift pattern and Eriksen and Kecklund (2007) found that flexible shifts offered police officers more sleep, because of the longer rest time between shifts. Flexible working arrangements in general, where work-time control and hence some stability is returned to employees, may help mitigate the effects of extended working hours, for example, in aiding recovery or helping to manager work-family conflict (see, for example, Kattenbach, et al., 2010).

Domestic roles and gender clearly may be an important factor. The male-orientated environment of policing, and the culture which therefore dictates the pattern of working time, may have a different effect for men and women, although in the present analysis we did not distinguish by gender. In their study of doctors, Tucker et al. (2013) found that attitudes towards disruptive working time were partly related to gender. This may reflect women working in male orientated (medical) professions, where it could be argued that work schedules do not accommodate domestic roles and responsibilities and may appear to favour men. Related to domestic roles and conflicts with professional working time is our respondents’ focus on the non-work domain in their descriptions. Ingre, et al. (2012) reported that a lack of predictability of time for family and leisure was associated with preferences for fixed shifts. These preferences, termed ‘personal’ fit, are described in considerable detail in our data, as respondents compare their domestic needs with the time available within their shift pattern. Such comments were just as likely from men as from women.

Our third contribution is to wider workforce issues facing public sector contexts where there are growing work demands and restricted resources to dedicate to staffing (Bach, 2016). This study allows us to reflect on the wider implications of how the quality of working time is being affected by the erosion of employee control over shift length and rest periods between shifts to meet strategic requirements for flexible scheduling; this is an issue across public sector services as well

as other front-line occupations. Some of our respondents also pointed to a ‘management by fear’ culture driving and sustaining this imposition of time pressures.

In conclusion, better understanding of how employees experience time and control over time is fruitful. Eriksen and Kecklund (2007) in their study of police officers in Sweden found that sleep and wakefulness problems were more associated with attitudes towards working hours than associated with actual working hours themselves. In other words, it is not the long hours in themselves which are viewed negatively; it is when working time encroaches on what years of research has shown is essential for the positive wellbeing and health of those who work on shifts – recovery time, either through family/leisure activity or sleep, and opportunity to effectively balance the work-life boundary. Our focus on shift extensification in the police provides one illustration of the potential silent erosion of control at the fringes of working time which may be having a growing impact on job quality.

References

- Åkerstedt, T. and Kecklund, G. (2005). The future of work hours—the European view. *Industrial Health*, 43(1), 80-84.
- Åkerstedt, T. and Kecklund, G. (2017). What work schedule characteristics constitute a problem to the individual? A representative study of Swedish shift workers. *Applied Ergonomics*, 59, pp.320-325.
- Åkerstedt, T., Knutsson, A., Westerholm, P., Theorell, T., Alfredsson, L. and Kecklund, G. (2002). Sleep disturbances, work stress and work hours: a cross-sectional study. *Journal of Psychosomatic Research*, 53(3), pp.741-748.
- Ala-Mursula L., Vahtera J., Pentti J., Kivimäki M. (2004) Effect of employee worktime control on health: a prospective cohort study. *Occup Environ Med*, 61, pp.254-261
- Albrecht, S.C., Kecklund, G., Tucker, P., Leineweber, C. (2016). Investigating the factorial structure and availability of work time control in a representative sample of the Swedish working population. *Scandinavian Journal of Public Health*. 44(3), pp.320-8. P-3313
- Bach, S. (2016). Deprivileging the public sector workforce: Austerity, fragmentation and service withdrawal in Britain. *The Economic and Labour Relations Review*, 27(1), pp.11-28.
- Baltes, B.B., Briggs, T.E., Huff, J.W., Wright, J.A., and Neuman, G.A. (1999). Flexible and compressed workweek schedules: A meta-analysis of their effects on work-related criteria. *Journal of Applied Psychology*, 84(4), pp.496-513.
- Bambra, C., Petticrew, M., Whitehead, M., Sowden, A., and Akers, J. (2007). *Project Final Report. The health and wellbeing effects of changing the organisation of shift work: a systematic review*. Public Health Research Consortium.
- Beckers, D., Kompier, M., Kecklund, G., and Härmä, M. (2012). Worktime control: theoretical conceptualization, current empirical knowledge, and research agenda. *Scandinavian journal of work, environment and health*, 38(4), pp.291-297.
- Bewley, H., Rincon-Aznar, A., & Wilkinson, D. (2014). An Assessment of the Changing Use of Flexible Employment and Implications for the National Minimum Wage, including Compliance (No. 11815). National Institute of Economic and Social Research. Chicago
- Brogden, M. and Ellison, G. (2012). *Policing in an Age of Austerity*. Routledge.
- Costa G, Åkerstedt T, Nachreiner F, Baltieri F, Carvalhais J, Folkard S, et al. (2004). Flexible working hours, health, and well-being in Europe: Some considerations from a SALTSA project. *Chronobiol Int*. 21, pp.831–44.
- Costa, G., Sartori, S., and Åkerstedt, T. (2006). Influence of flexibility and variability of working hours on health and well-being. *Chronobiology international*, 23(6), pp.1125-1137.
- Dick, P. (2009). Bending over backwards? Using a pluralistic framework to explore the management of flexible working in the UK police service. *British Journal of Management*, 20(s1), pp.S182-S193.

- Eriksen, C. A., and Keckland, E. (2007). Sleep, sleepiness and health complaints in police officers: the effects of a flexible shift system. *Industrial Health*, 45, pp.279-288.
- Flanagan, R. (2008). *The Review of Policing*. Final Report. London: Home Office.
- Golden, L., Henly, J. R., and Lambert, S. (2013). Work schedule flexibility: A contributor to happiness?. *Journal of Social Research and Policy*, 4(2), p.107.
- Green, F., Mostafa, T., Parent-Thirion, A., Vermeulen, G., Van Houten, G., Biletta, I., and Lyly-Yrjanainen, M. (2013). Is job quality becoming more unequal?. *Industrial and Labor Relations Review*, 66(4), pp.753-784.
- Grosswald, B. (2004). The effects of shift work on family satisfaction. *Families in Society: The Journal of Contemporary Social Services*, 85(3), pp.413-423.
- Hall, G. B., Dollard, M. F., Tuckey, M. R., Winefield, A. H., & Thompson, B. M. (2010). Job demands, work-family conflict, and emotional exhaustion in police officers: A longitudinal test of competing theories. *Journal of Occupational and Organizational psychology*, 83(1), 237-250.
- Harma, M., and Kecklund, G. (2010). Shift work and health – how to proceed? Editorial. *Scand J Work Envrion Health*, 36(2), pp.81-84.
- Hayday, S., Broughton, A., and Tyers, C. (2007). *Managing Sickness Absence in the Police Service; A Review of Current Practices*. London: HSE.
- Henly, J. R., and Lambert, S. J. (2014). Unpredictable work timing in retail jobs. Implications for employee work–life conflict. *Industrial and Labor Relations Review*, 67(3), pp.986-1016.
- Her Majesty’s Inspectorate of Constabulary (HMIC) (2014). *State of Policing*, HMIC.
- Her Majesty’s Inspectorate of Constabulary (HMIC) (2017). *PEEL: Police Effectiveness*, HMIC.
- Hewlett, S. A., & Luce, C. B. (2006). Extreme jobs: The dangerous allure of the 70-hour workweek. *Harvard Business Review*, 84(12), 49-59.
- Home Office (2004). *Study of Police Resource Management and Rostering Arrangements*. London: Home Office.
- Home Office (2007). *Flexible working in the Police Service*. London: Home Office.
- Houdmont, J., Kerr, R., and Randall, R. (2012). Organisational psychosocial hazard exposures in UK policing: Management Standards Indicator Tool reference values. *Policing: An International Journal of Police Strategies and Management*, 35(1), pp.182-197.
- Ingre, M., Akerstedt, T., Ekstedt, M., and Kecklund, G. (2012). Periodic self-rostering in shift work: correspondence between objective work hours, work hour preferences (personal fit), and work schedule satisfaction. *Scandinavian Journal of Work, Environment and Health*, 38(4), pp.327–336.
- Iwasaki, Y., Mannell, R. C., Smale, B. J., and Butcher, J. (2005). Contributions of leisure participation in predicting stress coping and health among police and emergency response services workers. *Journal of Health Psychology*, 10(1), pp.79-99.
- Janssen, D., and Nachreiner, F. (2004). Health and psychosocial effects of flexible working hours. *Revista de saude publica*, 38, pp.11-18.
- Jonsson, D. (2007). Flexibility, stability and related concepts. In: B. Furåker, K. Håkansson and J.C. Karlsson eds., *Flexibility and stability in working life*, Palgrave Macmillan, New York: NY, pp.30-41.
- Kattenbach, R., Demerouti, E. and Nachreiner, F. (2010). Flexible working times: Effects on employees' exhaustion, work-nonwork conflict and job performance. *Career Development International*, 15(3), pp.279-295.
- Kecklund, G., Sallinen, M. and Axelsson, J. (2016). *Optimizing Shift Scheduling*. In: M. Kryger, T. Roth and W. Dement eds. *Principles and Practice of Sleep Medicine*, 6th edition, Elsevier.
- Kerkhofs, M., Román, A. and Ester, P. (2010). *Flexibility profiles of European companies: European company survey 2009*. Publications Office of the European Union.

- Kinman G., McDowall A. and Cropley, M (2012). Work–family conflict and job-related wellbeing in UK police officers: the role of recovery strategies. Available at: <http://epubs.surrey.ac.uk/787223/> (accessed 16 September 2017).
- Lambert, S. (2008). Passing the buck: Labor flexibility practices that transfer risk onto hourly workers. *Human Relations*, 61(9), pp.1203–1277.
- Loveday, B. (2015). Police management and workforce reform in a period of austerity. In *Police Services* (pp. 115-127). Springer International Publishing.
- Lumsden, K. and Black, A. (2017). Austerity policing, emotional labour and the boundaries of police work: an ethnography of a police force control room in England. *British Journal of Criminology*, azx045.
- Muñoz de Bustillo, R., Fernández-Macías, E., Esteve, F, and Antón, J. I. (2011). *E pluribus unum?* A critical survey of job quality indicators. *Socio-Economic Review*, 9(3), pp.447-475.
- Nabe-Nielsen, K., Garde, A. H., Albertsen, K. and Diderichsen, F. (2011). The moderating effect of work-time influence on the effect of shift work: a prospective cohort study. *International archives of occupational and environmental health*, 84(5), pp.551-559.
- Nabe-Nielsen, K., Garde, A. H., Aust, B., & Diderichsen, F. (2012). Increasing work-time influence: consequences for flexibility, variability, regularity and predictability. *Ergonomics*, 55(4), 440-449.
- Nijp, H. H., Beckers, D. G., Geurts, S. A., Tucker, P. and Kompier, M. A. (2012). Systematic review on the association between employee worktime control and work-non-work balance, health and well-being, and job-related outcomes. *Scandinavian Journal of Work, Environment and Health*, pp.299-313.
- Pallesen, S., Bjorvatn, B., Magerøy, N., Saksvik, I. B., Waage, S. and Moen, B. E. (2010). Measures to counteract the negative effects of night work. *Scandinavian Journal of Work, Environment and Health*, pp.109-120.
- Police Federation (2016). *Quick Reference Guide*. Research and Policy Support Police Federation of England and Wales HQ. Available at: http://www.polfed.org/documents/QRG_-_Version_2.pdf [Accessed September 2017].
- Rubery, J., Ward, J., Grimshaw, D. and Beynon, H. (2005). Working time, industrial relations and the employment relationship. *Time and Society*, 14, pp.89–111.
- Sallinen M. and Kecklund, G. (2010). Shift work, sleep, and sleepiness - differences between shift schedules and systems. *Scandinavian Journal of Work and Environmental Health*. 36(2), pp.121-133.
- Scholarios, D., Hesselgreaves, H. and Pratt, R. (2017). Unpredictable working time, well-being and health in the police service. *The International Journal of Human Resource Management*, pp.2275-2298.
- Sheehan, K.B. (2001). E-mail survey response rates: A review. *Journal of Computer-Mediated Communication*, 6(2).
- Swanberg, J.E., Pitt-Catsoupes, M. and Drescher-Burke, K. (2005). A question of justice: Disparities in employees' access to flexible schedule arrangements. *Journal of Family Issues*, 26(6), pp.866–895.
- Swanberg, J. E., McKechnie, S. P., Ojha, M. U., & James, J. B. (2011). Schedule control, supervisor support and work engagement: A winning combination for workers in hourly jobs?. *Journal of Vocational Behavior*, 79(3), 613-624.
- Takahashi, M., Iwasaki, K., Sasaki, T., Kubo, T., Mori, I. and Otsuka, Y. (2012). Sleep, fatigue, recovery, and depression after change in work time control: a one-year follow-up study. *Journal of occupational and environmental medicine*, 54(9), pp.1078-1085.
- Theorell, T. (2010). Flexibility at work in relation to employee health. In: L.C. Cooper, J. Campbell Quick, J.M. Schabracq eds., *International Handbook of Work and Health Psychology*, 3rd edition, pp.251-267.

- Tucker, P., Bejerot, E., Kecklund, G., Aronsson, G. and Åkerstedt, T. (2013). *Doctors' Work Hours in Sweden: Their Impact on Sleep, Health, Work-family Balance, Patient Care and Thoughts about Work*. Stress Research Report. Stress Research Institute, Stockholm. <http://www.stressforskning.su.se/english/publications/reports> (accessed 150917).
- Tucker, P. and Folkard, S. (2012). *Working time, health and safety: A research synthesis paper*. ILO.
- Turnbull, P. J., & Wass, V. (2015). Normalizing extreme work in the police service? Austerity and the inspecting ranks. *Organization*, 22(4), 512-529.
- Van den Bergh, J., Beliën, J., De Bruecker, P., Demeulemeester, E. and De Boeck, L. (2013). Personnel scheduling: A literature review. *European Journal of Operational Research*, 226(3), E-mail survey response rates: A review. *Journal of Computer-Mediated Communication*, 6(2367-385).
- Van Der Hulst, K. and Geurts, S. (2001). Associations between overtime and psychological health in high and low reward jobs, *Work and Stress: An International Journal of Work, Health and Organisations*, 15(3), E-mail survey response rates: A review. *Journal of Computer-Mediated Communication*, 6(2227-240).
- Van Wanrooy, B., Bewley, H., Bryson, A., Forth, J., Freeth, S., Stokes, L. and Wood, S. (2013). *Employment relations in the shadow of recession: Findings from the 2011 Workplace Employment Relations Study*. Palgrave Macmillan.
- Winsor, T.P. (2012). *Independent Review of Police Officer and Staff Remuneration and Conditions Final Report* (Vol. 8325). The Stationery Office.

	Police officers				Police staff									
	Constables <i>N=1843</i>		Sergeants /Inspectors <i>N=601</i>		All police staff <i>N=813</i>		PCSO <i>N=147</i>		Control room <i>N=298</i>		Operational policing <i>N=162</i>		Support roles <i>N=206</i>	
	<i>Mean/N</i>	<i>SD/%</i>	<i>Mean/N</i>	<i>SD/%</i>	<i>Mean/N</i>	<i>SD/%</i>	<i>Mean/N</i>	<i>SD/%</i>	<i>Mean/N</i>	<i>SD/%</i>	<i>Mean/N</i>	<i>SD/%</i>	<i>Mean/N</i>	<i>SD/%</i>
Months on shift pattern	28	36.40	39	43.74	44	41.62	31	20.33	42	40.40	46	46.28	54	47.84
Tenure (1-4)	2.42	1.17	3.49	.73	2.20	1.20	1.63	.95	2.17	1.16	2.24	1.22	2.61	1.25
Age (years)	38	8.28	43	6.19	42	11.85	39	11.73	41	11.71	42	11.29	45	11.88
Female	516	28%	92	15%	455	56%	66	45%	195	65%	92	57%	102	50%
Dependents	750	41%	133	22%	354	44%	91	62%	176	59%	85	53%	106	52%
Married/cohabiting	1093	59%	467	78%	557	69%	56	38%	121	41%	77	48%	100	49%

Table 1 Sample description

Note. Total N=3257 PCSO ‘Police Community Support Officer’; Control room – includes Call handlers/Controllers/Dispatchers; Operational policing – includes police custodian/CSI/response/intelligence officers; Support roles – includes Admin, Researchers, Strategic/business roles
Tenure: 1 ‘less than 5 years’, 2 ‘5-9 years’, 3 ‘10-14 years’, 4 ‘15 years or more’

	Police officers				Police staff ^a									
	Constable		Sergeant/ Inspector		All police staff		PCSO		Control room		Operational policing		Support roles	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Shift pattern														
Variable Shift Arrangement	1282	69.6	444	73.9	536	65.9	64	43.5	277	93.0	109	67.3	86	41.7
Regulated Shift Pattern	561	30.4	157	26.1	277	34.1	83	56.5	21	7.0	53	32.7	120	58.3
Night worker	1357	74.2	452	75.7	427	53.2	8	5.5	248	84.6	100	62.1	71	35
Weekend work (3 days or more/month)	1370	75.7	433	73.4	478	60.9	75	52.8	215	75.4	108	67.5	80	40.4
Work FWA	418	22.7	149	24.8	252	31.1	44	30.1	87	29.2	35	21.6	86	42.4
Overtime														
None	373	20.2	123	20.5	372	45.8	71	48.3	102	34.2	80	49.4	119	57.8
1-3 hours/week	936	50.8	259	43.1	267	32.8	67	45.6	100	33.6	46	28.4	54	26.2
>3 hours/week	533	28.9	219	36.4	174	21.4	9	6.1	96	32.2	36	22.2	33	16.0
Shift extensification ^b														
4 nights in row	1123	61.7	327	55.1	355	46.8	13	10.0	191	65.6	84	54.5	67	36.6
<11 hrs rest betw shifts	556	31.0	151	25.7	100	13.3	25	18.4	28	9.9	22	14.6	25	13.7
Shifts of > 10 hours	921	51.0	299	50.9	129	17.0	12	9.0	68	23.9	27	17.1	22	12.0
Seldom 1 day off betw work periods	1078	59.5	258	60.1	528	69.2	91	65.9	211	73.5	104	68	122	65.6
Mins detained at end of shift														
none	425	23.1	124	20.6	594	73.1	101	68.7	248	83.2	100	61.7	145	70.4
up to 30 mins	389	21.1	180	30.0	133	16.4	30	20.4	34	11.4	32	19.8	37	18.0
betw 30-60 mins	588	31.9	190	31.6	62	7.6	16	10.9	10	3.4	19	11.7	17	8.3
betw 60-90 mins	88	4.8	31	5.2	3	0.4	0	0.0	2	0.7	1	0.6	0	0.0
betw 90-120 mins	252	13.7	55	9.2	15	1.8	0	0.0	3	1.0	6	3.7	6	2.9
over 120 mins	101	5.5	21	3.5	6	0.7	0	0.0	1	0.3	4	2.5	1	0.5
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
No. days detained at end of shift in average week (0-7)	1.41	1.12	1.78	1.41	.47	.94	.43	.83	.33	.88	.68	1.08	.55	.94

Table 2 Working time patterns

Notes. PCSO ‘Police Community Support Officer’; Control room – includes Call handlers/Controllers/Dispatchers; Operational policing – includes police custodian/CSI/response/intelligence officers; Support roles – includes Admin, Researchers, Strategic/business roles^b The first four indicators reflect deviation from the European Working Time Directive. Percentages represent those reporting either ‘sometimes’ or ‘often’ unless indicated otherwise

Theme	Terms	Officers (n=1669)	Staff (n=529)
Extensification and its effects on the work-life boundary	References to: travel or commute, increased hours, finishing times later, working a shift pattern that compounds the effects of the shift itself – quick change overs, quick turn arounds quick change overs, few days off in a pattern, being on call, attending court, short notice periods, reduced rest days, working on, or cancelling of, rest days, or a shift ending on a rest day, changes to shift patterns, training days, on call, over time	603 cases, 804 references	71 cases, 90 references
Management	Management or manager, seniors or supervisor, employer, policy, power	136 cases, 175 references	18 cases

Table 3 Thematic area frequencies