

Speed up society? Evidence from the UK 2000 and 2015 time use diary surveys.*Abstract*

Using time diary evidence on change in the frequency and distribution of activities from UK time diary data over the 15 years from the turn of the 21st Century, we assess whether the thesis of ‘the speed-up society’ is manifested in an increase in time intensity in people’s daily lives. Comparing indicators like time fragmentation, multitasking, and ICT use, to respondents’ reports of how rushed they normally feel, we find no evidence that time pressure is increasing, or that ICT use is associated with greater feelings of time pressure. Rather, we find consistent cross-sectional differentials in our measures of time intensity by gender and occupational status, supporting the idea of relative stasis in the underlying social inequalities of time. These findings are consistent with previous research based on time use data, and we pose them as a challenge to theories of societal speed-up.

Keywords: Time pressure; Time use diaries; Social acceleration; Speed-up society; 24/7 society

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Speed up society? Evidence from the UK 2000 and 2015 time use diary surveys.*Introduction*

The idea of a 'speed-up society' is all about time. Both theoretical analyses of social acceleration in late modernity (e.g. Rosa, 2013), and popularisations of the idea of the speed-up society (e.g. Crary, 2013; Schulte, 2014; Colvile 2016), take the increasing tempo of daily life as a central thematic in their analysis of social change. For example, in his description of acceleration in the pace of everyday life Rosa refers to: acting at a faster pace through the day; getting rid of pauses or intervals between our actions; increased multitasking; and increased feelings of time pressure associated with the speeding up of the pace of life (Rosa, 2013). Many recent accounts of speed-up in the temporal patterns of daily life are directly related to the effect of ICT. There have been huge changes in ICT over the past decade, and this is reflected in a growing volume of literature focusing on the acceleration of interconnectivity, digitalisation and gaming technologies, and their effects on perceptions of time pressure (e.g. Wajcman, 2015).

Time use diary data is the best existing source for discerning changes in the sequencing and duration of our activities that might be associated with temporal speed-up. Time use diary surveys collect self-completed contemporaneous sequence records of all the activities that respondents engage in over an entire day. The diary instrument has rows representing successive 10 minute activity periods, where respondents record (among other things) their main and any secondary activities. This sort of data uniquely enables us to interrogate the match between accounts of social acceleration, and the actual *experience* of the tempo and activities of daily life. Because there are now historical series of cross-sectional time use surveys, conducted from the 1960s through to 2015 (Gershuny, 2000), it

is possible to analyse whether measures of time pressure constructed from this data are really changing over time. Using two of such surveys from the UK, the first dating from the turn of the century and the most recent from 2015, we ask whether we can find support in changes in people's daily activities for the idea of the increasing 'speed-up society' over the first 15 years of the twenty-first Century?

Concepts relating to time-pressure, or hurriedness in daily life (variously appearing in the literature as the 'time squeeze', or an 'accelerating tempo of daily life') can be measured and tested using time use diary surveys in a number of different ways. Firstly, the sense of an increasingly harried experience of time may arise, at least in part, from changes in the *density* of the time we experience. For example, an increase over time in the number of activities engaged in simultaneously (multi-tasking) might have the effect of producing a feeling of greater time pressure. The multitasking literature based on time use data has focused particularly on the way in which women's greater levels of multitasking mean that their time is more pressured than that of men (Offer and Schneider, 2011; Sayer, 2007; Sullivan, 1997; Sullivan and Gershuny, 2013).

A further change in the contemporary nature of time use is connected to an increase in the segmentation of time; which we might express in Hochschild's terms as the increasing 'Taylorization' of time (Hochschild, 1997). This change is manifested in diary data by shorter durations of activities. As a consequence, time spent in particular activities seems more fragmented, and consequently more pressured. Simple arithmetic using time use diary data can show how 'fragmented' people's time is. The more activity events an individual has per day, the more activity changes or interruptions occur, and the shorter, on average, is the duration of each activity. The more activities, the less time is spent in each. This measure of

the fragmentation of time has been used in previous research to identify inequalities in leisure time (Jarosz, 2015; Mattingly and Bianchi, 2003; Sevilla-Sanz et al., 2012). In particular it has been found that women's leisure time is more fragmented; i.e. more likely to be interrupted by other activities, and shorter in duration than men's leisure time.

The literature on speed-up also points to a connection between exponentially increasing connectivity/use of ICT and increasing pressure of time. Wajcman (2015), for example, refers to an acceleration of life in 'digital capitalism', where ICT provides the potential to speed up work, and to permit work at any time. Mobile phone technology creates the possibility of constant connectivity across time and location, blurring the distinctions between work and other time (e.g. Kaufman-Scarborough, 2006). While there is an assumption that these elisions lead to increasing 'harriedness' both in work and in leisure, others have questioned whether these fears may be exaggerated (Bittman, Brown and Wacjman, 2009). In this paper we are able to straightforwardly examine change in people's reported use of a computer as a main or secondary activity from the turn of the 21st Century. However, in recognition of the fact that ICT is becoming interwoven and integrated into our rhythms of life in a way that is not so readily identifiable as a distinct 'activity', the 2015 UK Time Use Survey also enabled respondents to report using a mobile phone, tablet or computer at the same time as doing other activities.

Finally, a question about how rushed respondents are feeling was included in the questionnaire accompanying the UK Time Use Surveys, both in 2000 and 2015. This measure of subjective 'rushedness' allows us to compare indicators of time intensity derived from the diary data with the same individual's perception about how rushed they normally feel. Are perceptions of 'rushedness' correlated with objective measures of the intensity of

their time? And is there a relationship between people's reports of feeling rushed and the growth in time spent using the computer, and on-screen time more generally?

In this paper we look for empirical evidence from UK time diary data on change in the frequency and pattern of activities from 2000-2015. We ask whether speed-up is manifested in people's daily lives by an increase in their 'time intensity' according to measures of fragmentation and multitasking, and whether such time intensity is associated with how 'rushed' they normally feel. We then examine the relationship between time spent using ICT, our measures of time intensity, and respondents' feelings of 'rushedness'.

Background: The idea of speed-up

There has been huge interest generated by the idea of an increasing pressure of time in modern societies, as indicated by a large and still-growing volume of academic and popular literature. In 1992, in 'The Overworked American', Schor claimed that from the 1970s through the 1980s Americans were working longer, and this applied generally across the spectrum of income and family type (Schor, 1992). Recent popular books on the subject are 'Overwhelmed' (Schulte, 2014), 'The 24/7 Society' (Crary, 2014), and 'The Great Acceleration' (Colvile, 2016). These titles have received high media exposure, and it is evident that the view that we all have less and less time has become a 'folk narrative' about the 'time-squeeze' in modern life (Southerton, 2006; Southerton and Tomlinson, 2005).

These concerns can be traced back to ideas from classical sociological theory about the increased pressure of time associated with capitalism and modernism; found, for example, in the work of Simmel and Marx. Perhaps the best-known example from the modern

literature is Linder's book on the 'harried leisure class', in which he addressed the growing link between time pressure, leisure activities and leisure goods in modern-day affluent societies (Linder, 1970). He theorized that in modern day 'time-famine cultures' characterized both by economic affluence and time scarcity, leisure becomes a frantic race to maximize the 'time yield': the way in which leisure goods are combined with leisure activities.

The early 1990s literature on late modernity picked up on these themes, emphasising an inexorable increase in the pace of life leading to an ever-increasing pressure of time. The peculiarly apocalyptic metaphors characterising this literature focused on large-scale upheavals, ever-increasing risks, and rapid, dramatic change - a perspective made explicit in the choice of metaphors such as "juggernauts," "volcanoes," and the "runaway world" (Beck, 1992; Beck, Giddens, and Lash 1994; Giddens, 1999). More recent influential theories of speed-up, particularly that of 'social acceleration' (Rosa, 2003; 2013), draw on elements from both the classical and late modern literature. In his discussion of the social processes of acceleration Rosa refers to the mutually reinforcing processes of change characterizing late modernity: technological acceleration; acceleration in the pace of social transformations; and acceleration in the pace of everyday life.

Sullivan (2006) has argued that the metaphors used by the theorists of late modernity, emphasising and dramatizing speed-up, reflect the masculinist tradition that has dominated both classical history and sociology. Within this tradition large and dramatic movements of change (revolutions, coups, elections, market busts and booms, and other upheavals) are regarded as the material from which history is made. However, these metaphors of dramatic change may be contrasted with other less dramatic but equally meaningful

changes in people's everyday lives that go largely unrecorded in the pages of classical history, but inform the content of feminist and social history. The small social and economic changes that affect the real-life circumstances of individuals on a day-to-day basis—accumulating slowly, practiced and contested in daily interaction—form the subject of much empirical qualitative research, and they also provide the backdrop for changes in people's daily activities as documented through historical series of time use diary data.

Background: Who is feeling the pressure?

Strangely, perhaps, given the volume of literature referred to above, time use diary data has not to date provided much support for the idea of temporal speed-up in daily life. Diary evidence from the United States and Western Europe suggested that, over the last fifty years or so, overall workloads (combining paid and unpaid work) were not changing much, and, if anything, were decreasing (Jacobs and Gerson, 1998, 2005; Robinson and Godbey, 1999; Gershuny, 2000). This disjunction between the popular and empirically-informed academic findings on speed-up provide a challenge to the idea of an inexorable increase in time pressure.

One of the keys to this paradox appears to lie in distinguishing the experiences of different socio-demographic groups in a more finely-tuned way (Jacobs and Gerson 2005). Different sub-groups of the population have different experiences, which become amalgamated in overall trends. This strand of analysis led to the recognition that substantial increases in work-loads over the last fifty years have been in the main a feature of the changing employment structures and conditions of those from particular socio-economic and demographic groups - in particular, those who are more highly educated, in

higher-status jobs and in dual career households (Gershuny, 2005; Sullivan, 2008). The main manifestation of the time squeeze is thus associated with relatively specific groups; for example, professional dual-earner couples with dependent children, such as (many of) those that Hochschild studied in the Time Bind (Hochschild, 1997).

In an effort to reconcile Schor's findings with data from US census and time use diaries, Jacobs and Gerson concluded that the contemporary long workweek (50+ hours) was characteristic of the professional/managerial class and those with college education. These groups are not only over-represented among long-hour workers; but they are among those who are "likely to shape the terms of public discussion and debate" (Jacobs and Gerson, 2005: 39). In other words, the idea of the time famine as an objective empirical phenomenon may therefore in part reflect the social status of those groups who were studied or those who wrote about them. It *is* an objective phenomenon, but only among specific groups, and these are exactly the people who are over-represented among both the researched and the researchers.

Another, related, explanation might be the trajectory of individual life-courses. As we become older our commitments tend to increase (our paid work time, our family responsibilities etc.), with the result that, when we think about our own lack of time, we are actually making a comparison with earlier stages of our own lives, while the true comparison would be with comparable stages of the life-course of older generations (see Gershuny, 2005; Sullivan, 2008). This comparison, again, is likely to be particularly pertinent for those from higher socio-economic statuses, whose professional careers progress steeply into middle age.

Thirdly, the nature of activities, and the feelings associated with them, may be changing over time. For example, Linder argued that leisure activities, as well as becoming more fragmented, are at the same time becoming more intensive, involving higher amounts of effort and expenditure (Linder, 1970). Conventional economic theory starting with Becker (1965) predicts just this outcome. It could therefore be that, even if leisure time has remained the same (or even increased slightly), the time that is spent in leisure has come to feel more intensive in character, and consequently more pressured. In a previous paper Sullivan (presented the concept of cultural voraciousness as a 'quantitative' dimension of leisure consumption based upon both the range and the frequency of leisure participation (Sullivan and Katz-Gerro, 2007). Voraciousness, therefore, reflects a quantitative temporal dimension of leisure consumption that can be related to theories of the changing pace of life and leisure in late modernity. When we investigated the socio-economic correlates of voracious leisure participation, it was clear that those with high social status are more voracious in their leisure participation (as well as being omnivorous in their cultural tastes). Since voraciousness is associated with high status individuals, we argue that it is used as a symbolic status marker associated with notions such as being busy, multitasking, and embracing a diverse pattern of cultural consumption.

Relatedly, in response to the conclusion that time pressure is a phenomenon experienced primarily by specific groups of the population (in particular those with high educational qualifications and high status jobs) Gershuny (2005) advanced the 'busyness as the badge of honour' hypothesis. This states that busyness may have more to do with the super-ordinate class's *self-representation* as busy, rather than objective reality. According to this thesis there has been a change in the social construction of busyness, such that work, not leisure, is now the signifier of dominant social status. This is evidenced by a historical

reversal—over a remarkably short period—of the relationship between privileged social position and the objective indicators of busyness. The most-privileged now spend more time at work than the less so. Veblen’s ‘Theory of the Leisure Class’ arguments are to the effect that the prestige of leisure in the early 1900s reflected its association with the daily practices of the superordinate class. Similar considerations should now accord a similar degree of prestige to the relatively long hours of work which are, in the contemporary developed economies, a characteristic of the best-placed individuals in the society. Busyness becomes a symbolic marker of status. As we show below, in our data those who are employed in professional/managerial occupations do indeed report feeling more rushed than those employed in ‘routine’ occupations.

Finally, in keeping with these findings, neither paid nor unpaid work times in the UK show substantial change from the turn of the 21st century, contrary to the idea that we’re all working much harder. What has increased dramatically, however, is time spent using computing technologies. Of all activities, ICT use is the only one that shows a large increase over the period 2000-2015. There is some speculation in the literature about the effect of an increasing amount of time spent using ICTs. Some argue that the instantaneous and simultaneous time generated by digital technologies implies a dystopian effect created by the inability to reconcile these instantaneous time flows with the more ponderous flow of quotidian time (e.g. Castells, 1996; Urry, 2000). That increasing digitalisation creates greater harriedness is certainly the overall conclusion of the social acceleration thesis.

In empirical research, the most common finding has also been that the new digital technologies do tend to increase feelings of rushedness or stress due to the pressures created by constant connectivity, in particular to the workplace (Bittman, Brown and

Wajcman, 2009). On the other hand, there is also an argument that technological acceleration means that less time is needed to perform tasks, which should lead to an increase in free time. Managed properly, the pervasive accessibility of ICTs can save time by providing services online that might otherwise involve time-consuming journeys – the clearest example being online shopping and services (Colvile 2016). In fact, as Wajcman (2015) points out, ICT use can involve either work or play, in a way that blurs boundaries between these two traditional opposites. Whether this creates a heightened sense of time pressure is the empirical question to be addressed.

Time Use Diary Data and Methodology

We use data from the UK time use surveys of 2000-1 and 2014-15, (working age sample aged 18-64). For convenience we refer throughout to the 2000 and 2015 surveys. These surveys constitute the two UK Office of National Statistics contributions this century to the Harmonised European Time Use Study, a decennial collection of harmonised national cross-sectional time use diary surveys collected across the countries of the European Union. They are therefore directly comparable. Both are based on nationally-representative stratified random household addresses in the UK, and included self-completion activity diaries for one weekday and one weekend day, collected from all household members aged 8 and over. These diaries provide a contemporaneous record of peoples' daily activities throughout the day, and are widely regarded as the 'gold standard' for the collection of time based information. The diary instrument has rows representing successive 10 minute activity periods, and separate columns where respondents record: their main and secondary activities; their location; and the co-presence of others during their activities. The 2015 diary was extended to include additional fields recording the

enjoyment of activities and, importantly for the current study, the use of mobile phones, internet and tablets concurrently with other activities. Both surveys also included household and individual questionnaires for all household members aged over 15 containing basic economic and demographic variables, biographical and household information. Also included were sections on voluntary work, participation in leisure activities, measures of paid and unpaid outsourcing of household services, self-perceived health and the enjoyment of activities. The 2000-1 survey collected over 20,000 diaries from 11667 people in 6414 households; the 2014-15 survey collected over 16,500 diaries from 9388 people in 4238 households.

Dependent and independent variables

In the first section of the paper we provide descriptive analyses of time-use measures that have been hypothesised to be associated with increasing feelings of time pressure: greater fragmentation of activities, and multitasking. Firstly, increases in event frequencies, and its inverse - reductions in the durations of events, might both provide evidence of an increasing fragmentation of daily life. Formally, considering single days, we take f_i and d_i respectively as the mean daily frequency and mean daily duration of each distinct occurrence (“event”) of activity i :

$$E_i = f_i * d_i$$

‘Events’, for the purpose of this first analysis, are defined as periods over the day where there is no activity change in the primary activity (coded according to the HETUS 250 activities classification) ¹.

For the measurement of multitasking the primary activity codes of the HETUS 250 activities classification are split according to whether or not there was a recorded simultaneous 'other' activity. Multitasking is defined as the proportion of waking time spent doing two (or more) simultaneous activities.

Throughout the analyses we use both gender and socio-economic class (SEC) as independent variables. The SEC variable we use is the simplest 3-category classification based on the National Statistics Socio-economic Classification (NS-SEC): Professional and managerial occupations; Intermediate occupations; and Routine and manual occupations.

Crucially for our analyses, a question on the individual questionnaire of both the 2000 and 2015 surveys asked respondents to report how rushed they 'normally feel'. We use this measure for our analysis of time pressure, or harriedness. Because the response categories to this question were slightly different in the two surveys, for some of our analyses we collapsed the original 3-category variables into a 2-category variable differentiating those who reported feeling 'always rushed' from those who reported feeling 'sometimes or never rushed'.

In the second part of the paper we introduce different measures of time spent using ICTs. Firstly, and most simply, we can measure the time that people report 'using a computer' as their main or secondary activity. In addition, the 2015 UK time use survey also included a tick box for whether a smartphone, tablet or computer was being used at the same time as other activities. This enables us, for 2015, to calculate time recorded in activities other than 'using a computer' but where the respondent indicated by the tick box that they were simultaneously using ICT technologies. Adding this time to time recorded as

‘using a computer’ as a primary or secondary activity gives us an overall measure of ‘ICT time’.

After presenting descriptive figures relating to our measures of time intensity and screen use, we use logistic regression to assess the simultaneous impact of the time use, ICT use and socio-demographic indicators from the descriptive analyses on feelings of rushedness. To these models we add additional socio-demographic discriminators such as employment status and age, and relevant time-use variables measuring time spent in unpaid and paid work. We compare the effect of these additional variables with the effect of our measures of time intensity and ICT use.

Fragmentation and multitasking: indicators of speed-up in pace and time intensity?

Figure 1 shows the number of events per day according to gender and socio-economic class² in 2000 and 2015. The most striking feature is the gender differential: across time, and across SEC groups, women’s average number of events per day is higher than that of men ($t=39.4$, $P<.001$ for 2000; $t=28.0$, $P<.001$ for 2015). This accords with what we know already from the literature on the greater fragmentation of women’s time (e.g. Bittman and Wacjman, 2000; Sevilla-Sanz et al., 2012; Sullivan, 1997). There may be some suggestion of an overall decline in the average number of activities per day between 2000 and 2015, both for women and men, but in general this measure shows little indication of change over time, and no consistent difference by SEC. At a more detailed level of activity, only personal care activities and paid work show increases in the number of events per day (not shown).

*****Fig 1 here*****

Figure 2 shows the percentage of waking time spent multitasking by gender and SEC for 2000 and 2015. Firstly, it is clear that women spend a greater proportion of their time multitasking than men ($t=16.4$, $P<.001$ for 2000; $t=7.3$, $P<.001$ for 2015). Interestingly, though, men spent slightly more of their time multitasking in 2015 than in 2000 ($t=3.5$, $P<.01$), while women's multitasking didn't change, so that the gender gap in multitasking is less pronounced in 2015. The fact that there is no evidence for an increase in multitasking by women over time is perhaps surprising given the general assumption from the literature: that women are doing more multitasking as a way of managing the increasing burden of employment and continuing responsibility for domestic work (e.g. Offer and Schneider, 2011; Sayer, 2007).

There is also a SEC gradient evident for men and, particularly, for women over both surveys. Managerial/professional women and, to a less convincing extent, men, both spend a higher proportion of their time multitasking than their counterparts in routine occupations (for women $t=4.8$, $P<.001$ in 2000; $t=5.7$, $P<.001$ in 2015: For men $t=5.2$, $P<.001$ in 2000; $t=3.4$, $P<.01$ in 2015). This at least accords with the idea that multitasking is one of the things that may help account for a greater feeling of time pressure amongst higher SEC groups. At the more detailed level of activities (not shown), only personal care activities and out-of-home leisure (for women only) are more likely to be multitasked over time.

*****Fig 2*****

To summarise, we find evidence for the expected SEC gradients in these indicators of time intensity, but little evidence for any speed-up in the tempo of daily activities over time:

- Figure 1 shows little change in the number of activity events per day over the period 2000-2015

- Figure 2 shows that, while men's multitasking increased slightly, there was little change in women's multitasking from 2000-2015.

The single most noticeable feature of these figures is that women's time is both more fragmented and involves more multitasking than that of men's. So why the general impression of speedup?

We can use the 'rushed' question from the individual HETUS questionnaire to look at who is more likely to report feeling rushed. Figure 3 shows that in 2000 managerial/professional respondents were more likely to claim to 'always' or 'often' feel rushed than respondents in routine occupations, but this gradient had evened out by 2015 (for women $t=7.1$, $P<.001$ in 2000; $t=1.5$, ns, in 2015: For men $t=7.8$, $P<.001$ in 2000; $t=0.2$, ns, in 2015). Over the 2000-2015 period there was an evident substantial reduction in the proportion of those who reported 'always' feeling rushed among both women and men. This is particularly the case for higher SEC men and women – an effect that results by 2015 in the elimination of the SEC gradient for men that was evident in 2000. Again, what is really striking is the much higher reporting of 'always' feeling rushed among women than men across both surveys ($t=12.5$, $P<.001$ in 2000; $t=11.6$, $P<.001$ in 2015).

*****Fig 3*****

We repeated the above analyses of rushedness, controlling for time fragmentation and multitasking (not shown) but found no clear relationship between feeling 'always rushed' and time fragmentation. Only women in routine occupations who claim to 'always' feel rushed in the 2000 survey came close to showing a significantly higher activity count. In contrast, we found a consistent, although rather weak, relationship between always feeling rushed and a *lower* proportion of time spent multitasking across SEC groups. Again, this

gradient is the reverse of what would be expected if multitasking contributed to a sense of time pressure.

Once again, overall gender differentials were the most evident feature of these results. These findings are hardly consistent with the ‘speed-up’ hypothesis of late modernity – but they are much more consistent with what is known about from the feminist literature about women’s problems in combining employment with family responsibilities. However, it seems that we cannot draw the simple conclusion - - that multitasking is one of the reasons for women’s greater sense of feeling rushed - since there is no obvious relationship evident at the overall level between multitasking and feelings of rushedness.

Computing use, ICT time and rushedness

The average time reported as using a computer (as a main or secondary activity) increased substantially from 6 minutes/day for women and 17 minutes/day for men in 2000, to 37 minutes/day for women and 44 minutes/day for men by 2015. For the 2015 data we are able to add time recorded in the tick-box for using a smartphone, tablet or computer whilst doing other activities to time recorded as ‘using a computer’ as a primary or secondary activity. Figure 4 shows the contributions to total ICT time in 2015 made by computing use recorded as a primary and as a secondary activity, and by the use of a tablet/phone/computer during other activities for men and women.

*****Fig 4*****

It is clear that use of a smartphone, tablet or computer whilst doing another activity in the 2015 survey captures a very large proportion of all ICT time. Men do slightly more primary activity computing time, and spend much more time using a smartphone, tablet or

computer whilst doing other activities than women (178 minutes a day compared to 143). Using this measure for the cross-time comparison inevitably results in a huge potential increase in time spent using these media between 2000 and 2015 – from 17 minutes/day for men and 6 minutes/day for women in 2000 ('computing use' recorded as a main or secondary activity), to 180 minutes for women and 222 minutes for men (total ICT time in 2015). How much of this huge increase is real, and how much reflects the introduction of the new 'using a smartphone/tablet/computer' tickbox in the 2015 diary is, however, impossible to directly assess (the ICT tickbox option was not included in the 2000 diary). But for the purposes of this paper we can ask whether time spent using all forms of ICT in the most recent data is associated with feelings of time pressure, or rushedness.

*****Fig 5 *****

Figure 5 shows total ICT time in 2015 cross-classified by feelings of rushedness, gender and SEC. This figure suggests that there is a reasonably strong relationship in the expected direction between ICT use and feeling 'always rushed' for men in professional/managerial occupations ($t=2.7$, $P<.01$). However, there is no discernible relationship for women, or for men in other socio-economic classes (note the considerable overlap of the 95% error bars). In order to investigate some of the relationships shown in this paper in a more rigorous way we now control for other variables that may be associated with feelings of rushedness. The following table draws together some of the main conclusions of the paper in a logistic regression on the 'feeling rushed' variable for the 2015 data, controlling for our time-intensity variables, ICT use, conventional socio-economic/demographic variables, and the time spent in unpaid and paid work.

Table 1 shows 4 models, the first 3 of which are nested. Model 1 shows the result of entering those time use variables that are commonly assumed in the literature to be related to temporal speed-up: multitasking, the daily frequency of events, and ICT use. The dependent variable is feeling 'always rushed'. Model 2 shows the effect of adding time spent in unpaid work to these variables. Model 3 shows the effect of entering the standard socio-economic and demographic variables (gender, age and employment status). Finally, selecting only those in employment, Model 4 shows the effect of being in a managerial/professional or intermediate occupation (as opposed to the reference category – a routine occupation), and time use variables showing the time spent in both paid and unpaid work. Model coefficients are shown expressed as odds ratios ($\exp \beta$), with associated levels of statistical significance. Model R-squared values are also shown. These are very modest for the early models including only the time intensity and ICT time variables, but increase substantially when the socio-demographic variables are added in Model 3. Introducing other time use variables like time spent eating, sleeping and leisure time (not shown) triples the variance explained in feeling 'always rushed', but doesn't change the conclusions in respect of the measures of time intensity (multitasking and event frequency), or ICT use.

*****Table 1*****

Model 1, without any socio-demographic controls, indicates a strongly statistically significant association between the number of events per day and rushedness; the greater the number of events, the more likely respondents are to report feeling 'always rushed'. There is no effect of time spent in ICT use. The coefficient for multitasking is also statistically significant, but the association is negative – an increase in multitasked time is

associated with a reduction in the likelihood of respondents reporting they always feel rushed. We found a similar negative relationship between rushedness and multitasking in the descriptive statistics reported above (Figure 2), and we speculate that this might be related to the known strong association between being at home and the multitasking of unpaid work. In Model 2, therefore, we add time in unpaid work into the model. This variable turns out to have a strongly significant positive association with feeling 'always rushed'. The effect of this variable is to remove the statistical significance of the time fragmentation variable (although, interestingly, not the effect of multitasking). It appears, not unexpectedly, that time spent in unpaid work is strongly related both to the number of events per day and to feelings of rushedness. Model 3 introduces the socio-demographic and employment variables, including gender. These variables are all strongly associated with feelings of being always rushed. The strongest effect (expected from the descriptive statistics presented above) is that of gender. Women are 75% more likely to report feeling 'always rushed' than men when all other variables are controlled for (odds of 1.75 to 1). The likelihood of reporting feeling always rushed increases with age, but then decreases somewhat according to the squared term of age, presumably in relation to life-course stages related to family formation. Being employed (including self-employed) as opposed to non-employed has the expected strong association with rushedness, second only to being female. Those who are employed or self-employed are 55% more likely to report feeling always rushed than the non-employed. Finally, in Model 4, we enter SEC, restricting the analysis to those who are in employment. This enables us to add time spent in paid work as an additional variable, to complement time spent in unpaid work. Both time spent in paid work and time spent in unpaid work have independent, positive, effects on the likelihood of feeling always rushed. However, an extra minute spent in paid work has a much smaller

effect than that of unpaid work (an increase of less than 1% compared to 12% in the likelihood of reporting being always rushed). The effect of the socio-demographic variables is barely changed in this model, but it is noticeable that there is no difference in feeling always rushed, when controlling for other variables, between those in managerial/professional or intermediate occupations and routine occupations (the reference category). When controlling for time spent in paid work, the weak positive relationship between ICT time and feeling rushed (indicated in Figure 5 for professional/managerial men) is no longer evident. The inclusion of the paid work variable for the employed also appears to eliminate the statistical significance of the slight negative association with multitasking that was observed through Models 1-3.

Discussion

We find little evidence in time use data for the idea of a generalised speed-up in the experience of daily life over the period 2000-2015. Neither of the indicators of time pressure we have derived from the diary data (the number of events per day and the percentage of time spent multitasking), nor the 'rushed' question from the survey questionnaire indicates any increase either in time intensity or subjective time pressure. While there is some indication of a slight increase in multitasking among men over the period (Figure 2), there is little evidence for change in the number of events per day for either men or women (Figure 1), and there are big declines over time in the percentage of people reporting feeling 'always rushed' (Figure 3). These findings are consistent with previous research based on objective time use measures that has likewise failed to find much evidence for increases in time pressure.

With respect to ICT use, there was a very large increase in time spent using computers, tablets, and smartphones over the period 2000-2015. Although descriptive statistics suggested a positive relationship between feeling rushed and total ICT time for professional/managerial class men (Figure 5), there was nothing in our multivariate analyses to indicate that total ICT time is generally associated with feeling 'always rushed', even when controlling only for other measures of time intensity (Table 1, Model 1). Interestingly, among time use variables, it was the measures of the total time spent in paid and, particularly, unpaid work that proved to be much more important in their association with feelings of rushedness (Table 1, Models 2, 3 and 4). It appears that these rather simple measures of time spent in 'constrained' activities (employment and family care) are more strongly associated with feelings of rushedness than the measures of time intensity that we designed expressly to address the speed-up hypothesis (activity fragmentation and multitasking). The implications of this is entirely in keeping with our other findings. Since we know that, overall, time spent in paid work did not change much over the period, and time spent in unpaid work was relatively stable for men but decreased for women, there is nothing in this finding to suggest that there is any significant speed-up in the experience of rushedness associated with increases in paid or unpaid work for either women or men.

What we pose here is, therefore, a challenge for theories of social acceleration – if the world is 'speeding up' we need to find ways to explain it that are not related at the average population level to time intensity as measured by the fragmentation of daily activities, or whether they are multi-tasked or not, or even to people's reports of feeling rushed. Neither is there a strong relationship with ICT use, even though this has increased dramatically over the period. Theories of social acceleration need to be able to take this apparent paradox into account (see also Wajcman, 2015).

Of course, we have not compared our measures of time fragmentation and multitasking with earlier time use surveys dating back over 40 or 50 years. In part this is a question of data quality in the earlier surveys, which means, for example, that we can't measure multiple activities so easily in the earlier surveys. But it is also because we wanted to measure the effect of the increase in ICT use, which has developed so recently and rapidly, on perceptions of feeling rushed. The exponential nature of this increase also resonates with a theme of the social acceleration literature, which is that the world is "getting faster, faster" (Colvile 2016). If things are really changing so rapidly, we would expect to be able to observe this in a pronounced way in more recent periods.

In fact, rather than any evidence for generalised speed-up, we find consistent cross-sectional differentials in our measures of time intensity by gender and occupational status³. Our main findings, therefore, support the idea of relative stasis in the underlying social inequalities of time. The professional/managerial class is more likely to be under pressure of time according to measures of time intensity, although these differentials are diminishing. Similarly, among both women and men, those in higher status occupations report feeling more rushed than those with lower occupational status. What is really striking, however, is the higher levels of time fragmentation and multi-tasking, and reporting of feeling 'always rushed', among women. Women's higher levels of reported rushedness deserve much more attention than they are currently accorded in the theoretical literature on social acceleration and late modernity. The relative strength of the differential by gender as compared to either changes over time or occupational status differentials would be completely unexpected if one were relying exclusively on theories of late modernity to understand changes in our experience of time pressure.

Much previous research has referred to higher levels of temporal pressure among women, related to greater work-family conflict (e.g. Bianchi, Robinson and Milkie, 2006; Coltrane, 2000; Geist and Cohen, 2011; Hochschild, 1989; Robinson and Godbey, 1997; Sayer, England, Bittman and Bianchi 2009), and to the difficulties of synchronising women's diverse temporal schedules (Southerton 2006; Southerton and Tomlinson 2005). Robinson and Godbey drew attention in the late 1990s to relevant structural changes in employment that have contributed to the creation of a 'time squeeze' for women. A growing number of women face onerous multiple obligations (i.e. paid work and domestic work) – and this is mainly an effect of more women entering the labour force, together with the growing percentage of single households in modern western populations (Robinson and Godbey, 1997). Clearly, time pressure will be particularly acute for those with exceptionally stressful schedules, such as mothers with young children who also have their own career, or those who are single parents. It is likely that in a situation where women are both increasingly moving into the labour force and are still largely responsible for domestic work, that the conflicts involved in managing work and family lead to heightened feelings of time pressure among women, irrespective of SEC or education.

The socio-economic gradients we identify in multitasking and ICT time are consistent with voraciousness consumption theory. Those from higher socio-economic statuses and with higher educational attainment do more multitasking, and spend more time using ICT. The fact that the same people are more likely to report feeling 'always rushed' is consistent with the busyness as a badge of honour hypothesis. The conundrum is that, if we are living in a society that is constantly accelerating, and busyness is indeed a status claim, we would expect to see an increase in reports of feeling rushed over time among the well-to-do groups who are attempting to maintain their status distinction – but this is not the case.

There are some class and educational gradients in reported rushedness, but these gradients are not growing. In fact, reported rushedness has decreased over time, especially for men, and the occupational gradient has disappeared. Even less consistent with the status claim argument is that it is women's time that appears from these indicators to be both more intensive and more rushed than that of men's.

In terms of the next steps, we should consider both the content and the context of activities in more detail. Future research should refine the analysis with reference to specific activities, and for specific groups of people (defined, for example, by gender, employment and family status). For example, by examining the effects of the pressure of combining career and family in the context of growth in career employment for women. It is also probable that rapidly changing ICT practices will have an effect at a more detailed level on the experience of daily life, but the direction of that effect in terms of time pressure is not yet fully evident. While internet shopping, for example, may reduce the stress of making shopping journeys by car, the pressure of continual connectivity and the changing nature of professional work may have the opposite effect. Changing ICT means that a single individual may now be able to perform many tasks that, in the past, a number of people were employed to do. In this way the changing practices of certain kinds of employment where ICT are replacing hands-on-the-job may serve to increase feelings of time pressure among those who remain employed.

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Endnotes

¹ Sleep is not included in the calculation of change of activity

² These occupational-based status groups are defined according to current or previous employment. Very few respondents had never had a job, so the figures include most of the sample.

³ We repeated these analyses using educational level in place of occupational SEC and found very similar results.

References

Beck U (1992) *Risk Society: Towards a New Modernity*. London : Sage Publications.

Beck U, Giddens A, and Lash S (1994) *Reflexive Modernization : Politics, Tradition and Aesthetics in the Modern Social Order*. Cambridge : Polity Press

Becker GS (1965) A theory of the allocation of time. *Economic Journal* 75 (299): 493–517.

Bianchi SM, Robinson JP, and Milkie, MA (2006) *The Changing Rhythm of American Family Life*. New York: Russell Sage Foundation.

Bittman M, Wajcman J (2000) The rush hour: The character of leisure time and gender equity. *Social Forces* 79: 165–189.

Bittman M, Brown JE, and Wajcman J (2009) The mobile phone, perpetual contact and time pressure. *Work, Employment & Society*. 23(4): 673.

Castells M (1996) *The Rise of the Network Society*. Oxford: Blackwell.

Coltrane S (2000) Research on household labor. *Journal of Marriage and Family* 62: 1209–1233.

Colvile R (2016) *The Great Acceleration: How the World is Getting Faster, Faster*.
New York: Bloomsbury

Crary J (2013) *24/7: Late Capitalism and the Ends of Sleep*. London: Verso Books

Geist C, Cohen P (2011) Headed toward equality? Housework change in comparative perspective. *Journal of Marriage and Family* 73: 832 – 844

- Gershuny, J (2000) *Changing Times: Work and Leisure in Postindustrial Society*. Oxford: Oxford University Press.
- Gershuny, J (2005) Busyness as the badge of honor for the new superordinate working class. *Social Research* 72(2): 287-314.
- Giddens A (1999) *Runaway World: How Globalisation is Reshaping our Lives*. London: Profile Books.
- Glorieux I, Laurijssen I, Minnen J, and van Tienoven TP (2010) In search of the harried leisure class in contemporary society: Time-use surveys and patterns of leisure time consumption. *Journal of Consumer Policy* 33:163–181
- Hochschild A (1997) *The Time Bind: When Work becomes Home and Home becomes Work*. New York: Henry Holt & Co.
- Hochschild A (1989) *The Second Shift: Working Parents and the Revolution at Home*. Berkley: University of California Press
- Jacobs JA, Gerson K (2005) *The Time Divide: Work, Family and Gender Inequality*. Cambridge: Harvard University Press
- Jarosz E (2015) The Duration and Dynamics of Leisure among the Working Population in Poland: A Time-Use Approach. *World Leisure Journal* 58 (1): 44-59
- Kaufman-Scarborough C (2006) Time use and the impact of technology. Examining workspaces in the home. *Time & Society* 15(1): 57-80.
- Linder SB (1970) *The Harried Leisure Class*. New York: Columbia U.P.

Mattingly MJ, Bianchi SM (2003) Gender differences in the quantity and quality of free time: The U.S. experience. *Social Forces* 81: 999-1029.

Offer S, Schneider B (2011) Revisiting the gender gap in time-use patterns: multitasking and well-being among mothers and fathers in dual-earner families. *American Sociological Review* 76: 809–833.

Robinson JR, Godbey G (1997) *Time for Life: The Surprising Ways Americans Spend their Time*. Penn State University Press.

Rosa H (2003) Social acceleration: ethical and political consequences of a desynchronized high-speed society. *Constellations* 10 (1): 3-33

Rosa H (2013) *Social Acceleration: A New Theory of Modernity*. New York: Columbia University Press.

Sayer L (2007) More work for mothers? Trends and gender differences in multitasking. In: T. van der Lippe T, Peters P (eds) *Competing Claims in Work and Family Life*. Cheltenham: Edward Elgar, 41-55

Sayer L, England P, Bittman M, and Bianchi SM (2009) How long is the second (plus first) shift? Gender differences in paid, unpaid, and total work time in Australia and the United States. *Journal of Comparative Family Studies* 40: 523-544

Schor J (1992) *The Overworked American: The Unexpected Decline of Leisure*. New York: Basic Books.

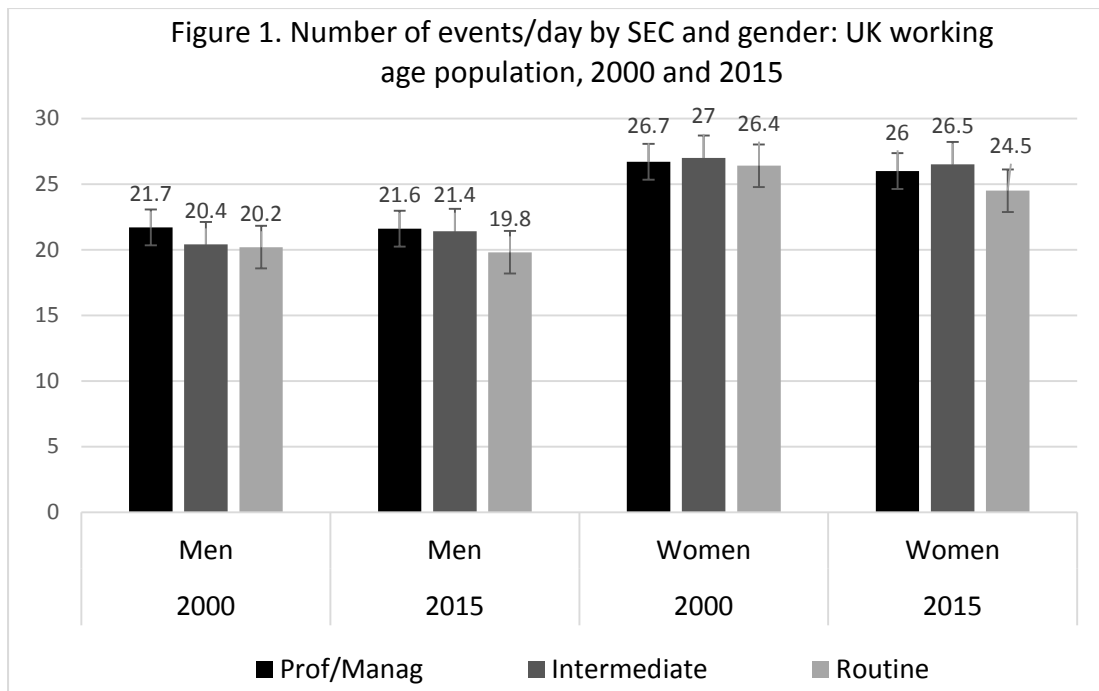
Schulte B (2014) *Overwhelmed: Work, Love and Play when No-one has the Time*. New York: Sarah Crichton Books.

- Southerton D (2006) Analysing the temporal organization of daily life: social constraints, practices and their allocation. *Sociology* 40 (3): 435-454.
- Southerton D, Tomlinson M (2005) Pressed for time - the differential impacts of a 'time squeeze'. *The Sociological Review* 53: 215-239.
- Sullivan O (1997) Time waits for no (wo)man: an investigation of the gendered experience of domestic time. *Sociology* 31(2): 221-239
- Sullivan O (2006) *Changing Gender Relations, Changing Families: Tracing the Pace of Change*. New York: Rowman and Littlefield (Gender Lens Series)
- Sullivan O (2008) Busyness, status distinction and consumption strategies of the income-rich, time-poor. *Time & Society* 17 (1):71-92.
- Sullivan O, Gershuny J (2001) Cross-national changes in time-use: some sociological (hi)stories re-examined. *British Journal of Sociology* 52 (4): 331-347
- Sullivan O, Gershuny J (2013) Domestic outsourcing and multitasking: How much do they really contribute? *Social Science Research* 42: 1311–1324
- Sullivan O, Katz-Gerro T (2007) The Omnivorousness thesis revisited: Voracious cultural consumers'. *European Sociological Review* 23 (2): 123-137
- Urry J (2000) *Sociology beyond Societies: Mobilities for the Twenty-First Century*. London: Routledge.
- Wajcman J (2015) *Pressed for Time: The Acceleration of Life in Digital Capitalism*. Chicago: University of Chicago Press

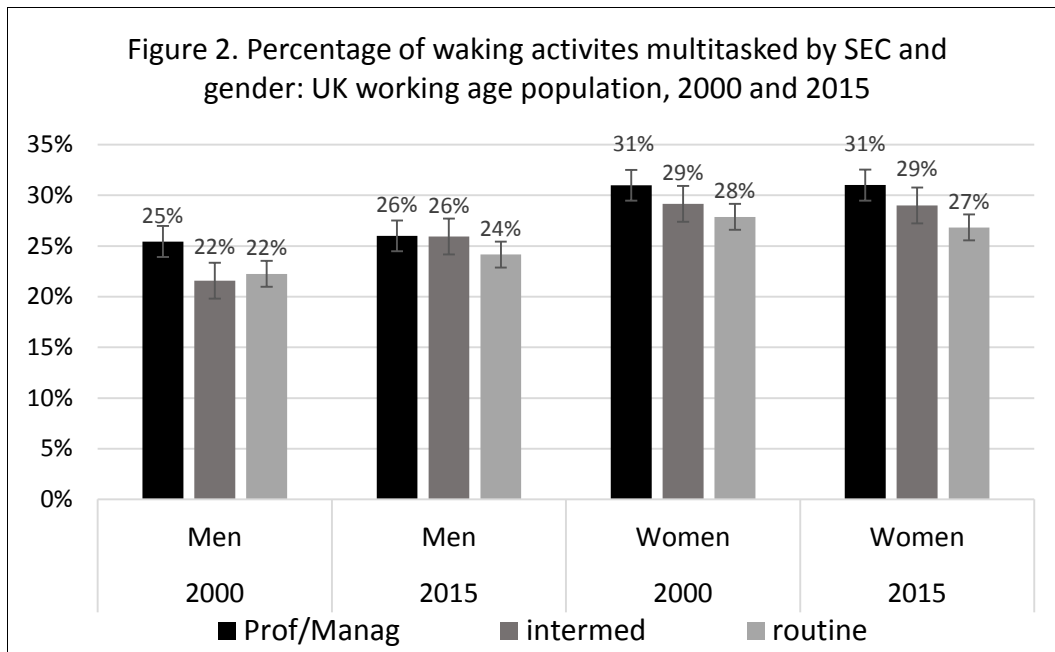
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(The error bars show 95% confidence intervals).



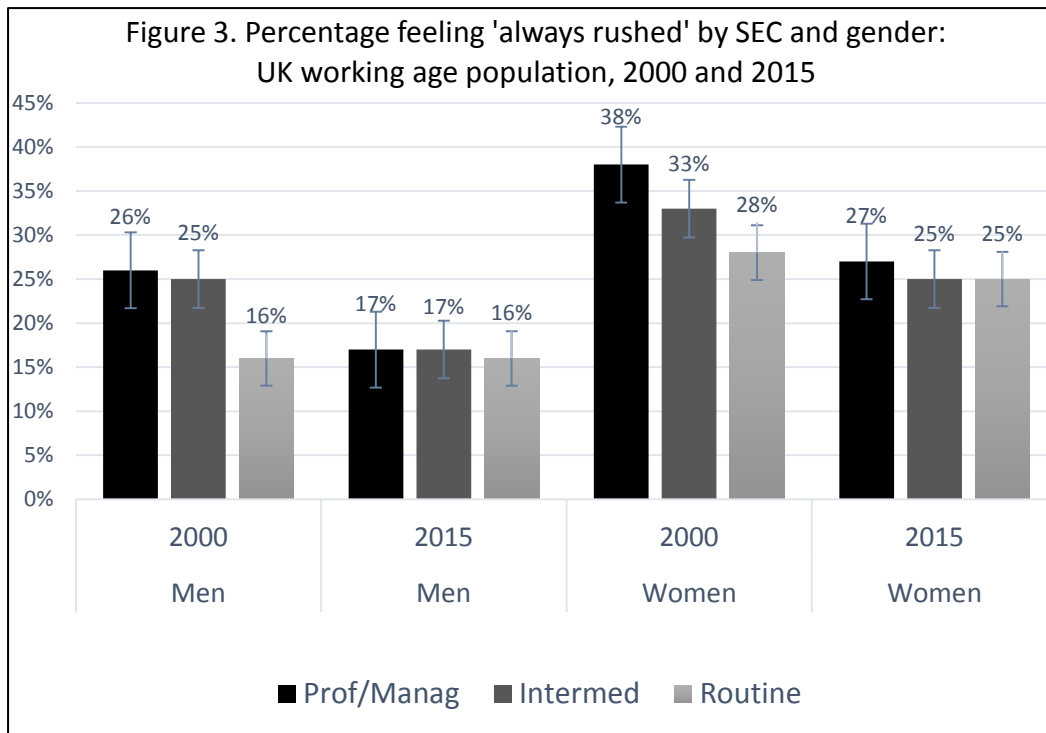
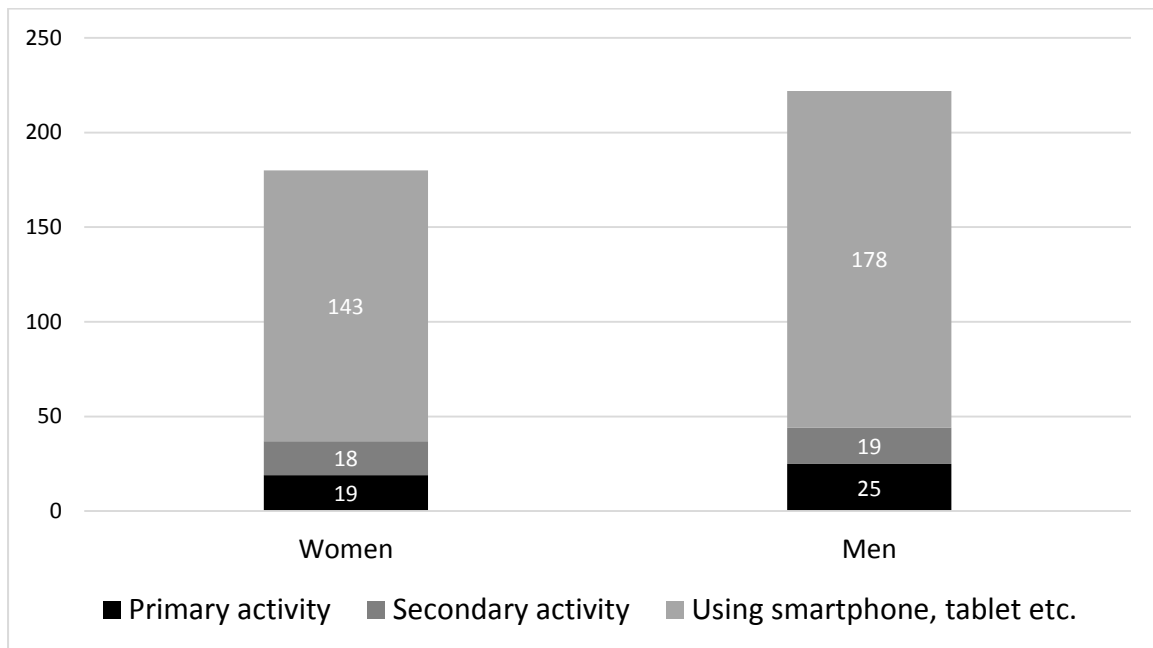


Figure 4. Measuring ICT use: UK working age population, 2015



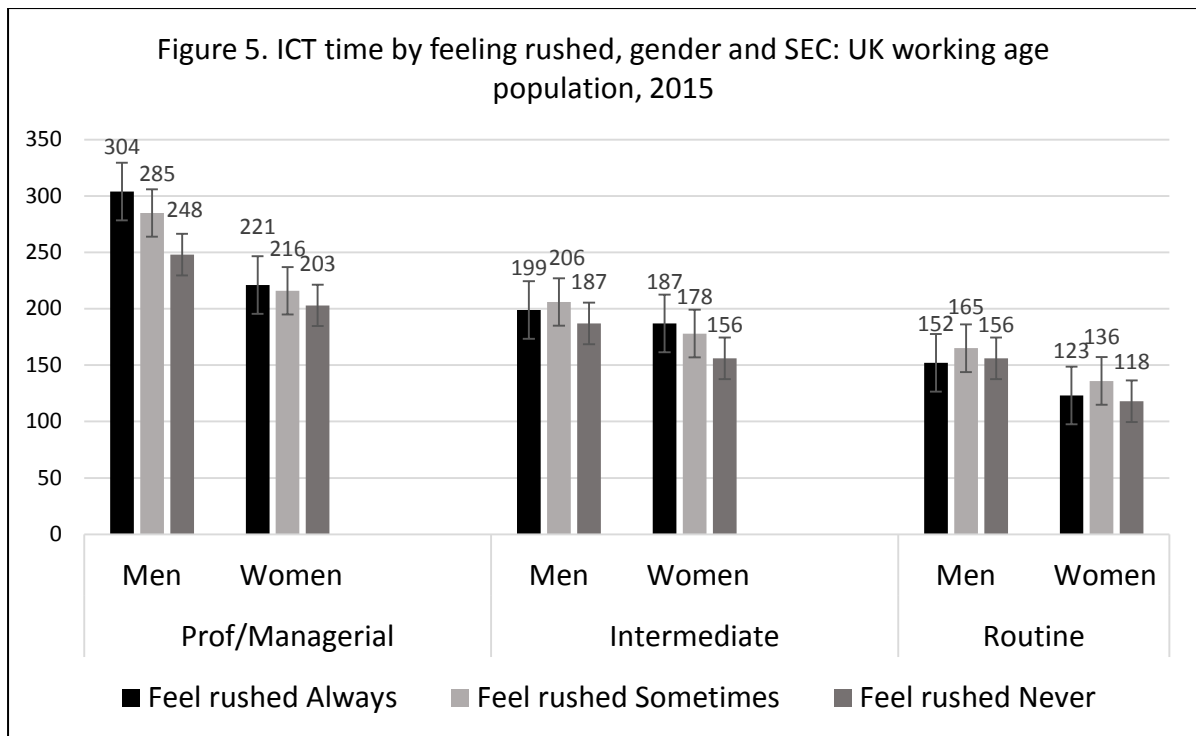


Table 1: Logistic regression models on feeling 'always rushed'; UK working age population, 2015

Variable	Model 1	Model 2	Model 3	Model 4
	Exp (B)	Exp (B)	Exp (B)	Exp (B)
Multitasking	.712**	.691**	.725*	.756
Event frequency/day	1.013***	1.004	.999	1.006
ICT time	1.000	1.000*	1.000 ⁺	1.000
Time in unpaid work/100		1.114***	1.092***	1.117***
Time in paid work/100				1.001***
Female			1.754***	1.851***
Age			1.142***	1.142***
Age squared/100			.843***	.848***
Employed			1.550***	
Managerial/Professional				1.060
Intermediate Occupation				1.012
Constant	.210***	.202***	.012***	.011***
Pseudo R ²	.004	.011	.059	.053

⁺Statistically significant at P<.10

* Statistically significant at P<.05

***Statistically significant at P<.000