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ABSTRACT

Does Telework Stress Employees Out? A Study on Working at Home and Subjective Well-Being for Wage/Salary Workers*

Using data from the 2010, 2012, and 2013 American Time Use Survey Well-Being Modules, this paper examines how subjective well-being (SWB) varies between working at home and working in the workplace among wage/salary workers. Both OLS and individual fixed-effects models are employed for estimation, and the results are largely consistent. In general, we find that working at home is associated with a lower level of net affect and a higher probability of having unpleasant feelings relative to working in the workplace. We further decompose homeworking into telework and bringing work home and find that the effect of SWB varies by types of homeworking. In comparison with working in the workplace, telework increases stress in both samples of weekdays and weekends/holidays, and it also reduces net affect and increases unpleasantness in the sample of weekends/holidays. In contrast, bringing work home on weekdays results in a lower level of net affect due to less happiness received. The only positive effect of homeworking we discover is that telework reduces tiredness on weekdays. As to the existence of gender difference in the effect of homeworking, our OLS results show that working at home is associated with positive affections for males but negative affections for females. However, fixed-effects models suggest that both males and females feel more stressed when teleworking, indicating the existence of individual heterogeneity.

JEL Classification: J22, J28, D13

Keywords: working at home, telework, subjective well-being, time use

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1. Introduction

With the expansion of residential high-speed internet and advances in telecommunication tools, recent decades have seen an increased prevalence of people working from home. In 2003, about 15% of wage/salary workers reported that they worked from home at certain times on an average day, whereas in 2016, this number went up to 19%.[1,2] Currently, half of the US workforce has a job that allows them to work from home at least part time, and the number of employees who regularly work from home more than doubled from 2005 to 2015.[3] In addition to the development of technology, the reduced wage penalty for teleworkers, increased work–life balance conflicts, and rising female labor force participation also led to this homeworking trend (Felstead, Jewson and Walters 2005; Oettinger 2011).

In both media and academic literature, two contradictory images of homeworking exist. Some people depict it as "the best of both worlds" because it facilitates the integration of paid work and family, whereas others portray it as "cutting my own throat" because of the negative intrusions on work in home (such as a cat sitting on the laptop, a baby crying on the ground, or a dog chewing on the shoes) and excessive workload (Mirchandani 2000). To further investigate whether homeworking is associated with positive affect, this paper evaluates the impact of working at home on wage/salary workers' instantaneous subjective well-being (SWB) measured by happiness, pain, sadness, stress, tiredness, and meaningfulness. Here, working at/from home (or homeworking) means conducting job-related work at home rather than doing housework or childcare. Although working at home usually refers to telework, defined as conducting formal, paid work at home during normal business hours, a majority of homeworkers are not typical teleworkers and do not have a formal agreement with their employers (Sullivan 2003; Song 2009; Wight and Raley 2009; Fenner and Renn 2010; Ojala 2011; Nätti et al. 2011). They perform unfinished work or catch up on work at home, mostly during evenings and weekends. Since these two patterns of homeworking may affect SWB differently, we differentiate telework from bringing work home in our analysis.

In practice, working at home can affect one's SWB differently from working in the workplace in several ways. First, regardless of which type of working at home one engages in, work–life balance is a main mechanism through which homeworking can affect SWB, although existing evidence is inconclusive. A few studies have shown that remote work enhances quality of life by allowing employees to take work–family dual roles simultaneously (e.g., Wight and Raley 2009; Azarbouyeh and Naini 2014). Contradicting evidence, however, indicates that blending personal and professional life increases negotiation in families (Baines and Gelder 2003) and leads to a higher level of stress (Sullivan 2012; Weinert, Maier and Laumer 2015). Second, telework may increase SWB by giving employees more flexibility and autonomy, which could allow them to better manage and organize their time and work more productively

[1] We calculate the statistics using the 2003 and 2016 American Time Use Survey. The sample is restricted to non-self-employed wage/salary workers.

[2] Using the 2003-2007 American Time Use Survey, Allard and Lacey (2009) show that about 12 percent of full-time workers with a single job did some work at home on an average day during their study period. They restrict the sample to full-time workers with a single job and include self-employed workers, whereas we limit the sample to full-time non-self-employed workers. Therefore, their estimates are not directly comparable to ours.

[3] The statistics are from GlobalWorkplaceAnalytics.com based on an analysis of the 2005-2015 American Community Survey. Website: http://globalworkplaceanalytics.com/telecommuting-statistics

(Kemerling 2002). Third, telework may improve SWB by reducing commute time, which is a pivotal factor in determining workers' instant enjoyment and is related to tiredness, stress, and women's psychological health (Wener et al. 2003; Gottholmseder et al. 2009; Roberts, Hodgson and Dolan 2011). Fourth, different from those who engage in teleworking, people who bring work home tend to work longer hours, making it more difficult for them to rest and recover and resulting in more tiredness. Working overtime at the expense of family may jeopardize employees' SWB by raising work–family conflict, increasing the workers' guilt about neglecting their families and resulting in more family disputes (Ojala 2011). Finally, doing unpaid overtime work at home may be considered more meaningful if it is a form of investment voluntarily made by workers who expect higher wages or a promotion in the long run, especially for well-educated managers and supervisors (Song 2009). As we can see, without empirical tests, it is impossible to tell whether homeworking affects employee well-being positively or negatively.

Subjective well-being is an important component when measuring quality of life. The purpose of this paper is to examine whether working from home improves SWB for wage/salary workers. To this end, we compare the affective utility derived from working at home to that gained in the workplace by using data from the 2010, 2012, and 2013 American Time Use Survey Well-Being Modules (ATUS WB). We adopt the day reconstruction method to study "instant enjoyment" experienced in working and other activities by combining time-use study data with affective states in activities. This hybrid approach was first proposed in Kahneman et al. (2004) with the assumption that utility is time-separable, and then it has been widely used in well-being research. Both ordinary least squares (OLS) and individual fixed-effects models are employed in our estimation, and their results are largely consistent. In general, we find that working at home is associated with a lower level of net affect and a higher probability of having unpleasant feelings compared to working in the workplace. The effect of working at home also varies by the measure of SWB and by the type of homeworking. In comparison with working in the workplace, bringing work home on weekdays results in a lower level of net affect caused by less happiness, but no effect is detected in the sample of weekends, which is most likely due to the small treatment sample. In contrast, we find that telework increases stress in both samples of weekdays and weekends. The main positive effect on affect we discover is that telework on weekdays reduces tiredness, probably because of less commuting. We further explore the distinctions in the effect of homeworking on SWB between men and women by stratifying the sample by gender. The OLS results show that a gender difference exists: homeworking is associated with positive affect for males but negative affect for females. However, this gender difference disappears when using fixed-effect models, which indicates the existence of individual heterogeneity.

This paper contributes to the literature in the following ways. Existing economic studies on remote work have mainly focused on self-employed workers and centered on its impact on wages and hours worked (e.g., Edwards and Field-Hendrey 2001, 2002; Oettinger 2011), and no published papers have investigated the association between working from home and subjective well-being among wage/salary workers. Although research from the fields of management, psychology, and sociology has looked at outcomes such as work–life balance and satisfaction, few studies have examined the SWB by providing empirical analysis. In addition, the effect of informal, unpaid, overtime work at home has not been fully understood and has been ignored in the discussion on flexible working. By exploring how wage/salary earners' SWB differs between working at home and working in the workplace, by the type of homeworking, and by weekdays/weekends, this paper provides new evidence on homeworking and affect. To the best

of our knowledge, this is the first study that empirically tests the effect of working from home on episode-level SWB for wage/salary workers. Our paper sheds light on two opposing claims about working at home and provides a nuanced understanding of the negative impact of working from home.

The remainder of the paper is organized as follows. In Section 2, we review the literature on working at home. Section 3 describes the data and the econometric model. Section 4 presents the empirical results and discusses the findings. Finally, Section 5 provides concluding remarks.

2. Literature Review

Although a relatively popular belief about telework is that it improves employees' quality of life and enhances work–life balance, no consensus exists in the literature on whether it benefits employees overall. On the one hand, a majority of studies have found that telecommuting is beneficial for both firms and employees, and even for the urban economy (e.g., Apgar 1998; Safirova 2002; Gajendran and Harrison 2007). It is associated with increased perception of autonomy (Dambrin 2004; Wilson and Greenhill 2004), higher productivity (Kemerling 2002), greater work–life balance and less stress (Felstead et al. 2002; Raghuram and Wiesenfeld 2004; Sullivan and Lewis 2006; Azarbouyeh and Naini 2014), greater employee satisfaction (Wheatley 2012), and better job performance (Fonner and Roloff 2010). Moreover, the positive effect of telework on work–life balance is larger for those who work at home more extensively, stay for longer periods, and have more family responsibilities (Golden 2006; Shockley and Allen 2007).

On the other hand, conflicting views and contradicting evidence exist in the extant literature as well. One concern regarding telework is that lack of interactions with coworkers may result in social isolation and worsen individual and group performance (Sparrowe et al. 2001). Being "out of sight, out of mind," telecommuters have less face time with managers, which can endanger their evaluations, limit their opportunities for promotion, and increase their role stress (Weinert, Maier and Laumer 2015). Bailey and Kurland (2002) review 80 empirical studies on telework and conclude that little clear evidence is available to show that telework is related to increased job satisfaction and productivity as it is asserted to do. A recent study also finds that telework has no effect on supervisor-rated productivity by conducting a quasi-field experiment (van der Meulen, van Baalen and van Heck 2014). Another concern regarding telework is that it can intensify work–family conflicts and increase stress because it blurs the boundaries between home and workplaces (Standen, Daniels and Lamond 1999; Mann and Holdsworth 2003; Hardill and Green 2003; Wheatley, Hardill and Green 2008; Russell, O'Connell and McGinnity 2009; Sullivan 2012). Mirchandani (2000) argues that homeworking is a cause of anxiety and stress because homeworkers have to integrate their work and family activities. Moore (2006) shows that working from home does not improve quality of life concerning subjective or objective well-being and reports that homeworkers with young children doing menial, low-paid work are more stressed. Previous research also suggests that the effect of flexible working differs by gender; the work–family conflict and stress are more pronounced for women and single parents because they are more likely to work at home for childcare reasons (Standen, Daniels and Lamond 1999; Hoque and Kirkpatrick 2003). The effect of telework may also depend on the extent of telework and job attributes. For example, Golden and Veiga (2005) provide evidence of an inverted U-shaped relationship between extensive levels of telecommuting and job satisfaction.

Working at home includes not only telecommuting, but also bringing work home to finish after business hours. Using the Work Schedules and Work at Home Supplement to the May 2001 Current Population Survey, Song (2009) shows that most homeworkers bring work home from the job without a formal arrangement. People choose to conduct informal, unpaid overtime work at home for different reasons, such as catching up on work, looking for opportunities for promotion, or having less bargaining power at work (for a summary of reasons, see Song 2009). This type of homeworking generally results in working long hours in the evenings and on weekends, and its effect on employee well-being is relatively less explored in the literature. Although it may raise future earnings (Bell and Freeman 2001; Schroeder and Warren 2004; Pannenberg 2005), it can also increase work–family conflict and negative reactions from spouses (Ojala, Nätti and Anttila 2014).

In the growing literature on home-based work, outcomes such as wage or work–family conflict have been largely studied, but instantaneous SWB has not been explored yet. Only two papers are closely related to our research. One is Ojala, Nätti, and Anttila (2014), which analyzes how informal overtime work at home differs from formal telework regarding work–family interface using the 2003 and 2008 Finnish Quality of Work Life Surveys. They find weak evidence for the notion that working at home is associated with positive work–family balance but a strong connection between overtime work at home and increased conflict over the allocation of time, increased guilty feelings about neglecting issues at home, and increased negative reactions from spouses. Unlike their study measuring work–family interactions using stylized questions, our research uses US time-use data and examines various dimensions of SWB based on episode-level affect questions that measures moment-to-moment SWB. Furthermore, given the fact that respondents report up to three episodes of activities on a diary day, our paper controls for worker-level heterogeneity by employing individual fixed-effects models.

The other related paper is Gimenez-Nadal, Molina, and Velilla (2018), an IZA working paper that mainly analyzes the characteristics of teleworkers but also investigates how telework affects SWB. Although we use the same data source (the 2012 and 2013 American Time Use Survey Well-Being Module), our empirical research method is very different from theirs. They restrict the sample to market work activities by excluding nonworking activities, which leads to a small sample size, and they adopt simple OLS models that cannot address individual heterogeneity. Moreover, because they account for very limited demographic and job characteristics, their models are more likely to be subject to omitted variable bias. Last, their definition of "net affect" differs slightly from the definition in the literature because they include tiredness, which is not a measure of affective emotion. In contrast, our paper considers two types of homeworking, separates the sample by weekdays and weekends, includes a comprehensive set of confounding factors, has one additional year of well-being data and a larger sample, and employs both OLS and fixed-effects models. Gimenez-Nadal et al. (2018) find that male teleworkers experience a higher level of net affect than commuters, which is largely consistent with our OLS results for the sample of males, but our fixed-effects results tell a different story. Overall, we adopt a more complicated research design and more accurate research method, leading to more reliable results.

3. Data and Methodology

Data

This study uses data drawn from the 2010, 2012, and 2013 American Time Use Survey Well-Being Modules. The ATUS is a time-diary study that has been conducted continuously since 2003 by the U.S. Census Bureau, based on a nationally representative sample of the US population aged 15 or over. Through telephone interviewing, the ATUS collects a detailed account of respondents' activities during a 24-hour period on a preassigned day of the week. This diary day begins at 4 am on the first day and ends at 4 am on the following day. It is randomly selected and could be any day of the year, except Thanksgiving Day and Christmas Day.

The Well-Being Module is a survey added to the ATUS. Filed only in 2010, 2012, and 2013, it randomly selected three activities reported by each respondent of the ATUS and asked people how they were feeling during each activity. The selected activity must have been at least 5 minutes long, with sleeping, grooming, and personal activities excluded. The ATUS WB is a perfect dataset for our study because it asked respondents where and when they conducted various activities such as childcare, cooking, and working and also collected respondents' feelings/emotions they experienced in the activity. It thus provides rich information on individual demographics and activity characteristics.

Measures of Subjective Well-Being

In the survey, respondents were asked to rate the happiness, pain, sadness, stress, and tiredness they felt in the activity and to evaluate the meaningfulness of the activity, using a scale from 0 to 6, where a 0 means no feeling at all, and a 6 means the strongest feeling. These questions measure respondents' instantaneous subjective well-being in multiple dimensions. Note that in spite of the ordinal nature of SWB measures, we actually adopt a cardinal interpretation of individuals' responses. One of the challenges of treating the data as cardinal is that respondents may interpret the scale of measurement differently, which causes problems when comparing SWB across individuals. For example, some people are more emotional than others and tend to report both a higher level of happiness and of sadness. To address this issue, following Kahneman and Krueger (2006) and Krueger et al. (2009), we construct an ordinal, aggregate measure of SWB: unpleasantness.

Unpleasantness is a dichotomous variable indicating whether the activity is unpleasant or not. Specifically, an episode of activity is classified as unpleasant if the maximum score of negative emotions is strictly greater than the maximum score of positive emotions. In our data, stress, pain, and sadness are considered negative emotions, while happiness is considered a positive emotion.[4] Relying purely on an ordinal ranking of the feelings within each episode, unpleasantness reduces interpersonal differences in interpreting scales. As a result, as long as a person is consistent in interpreting scales when they report the intensity of their positive and negative emotions, it does not matter whether they are a high scorer or low scorer.

In addition to determining whether the dominant emotion in the activity is pleasant or not, we are also interested in knowing the overall intensity of the pleasantness. Therefore, we construct another aggregate measure of emotions: net affect—defined as the average score of

[4] We do not include meaningfulness and tiredness in the construction of unpleasantness and net affect because they are not affective (hedonistic) measures of SWB. When Kahneman and Krueger (2006) first developed the U-index (unpleasant index), they did not include tiredness in the determination of a negative episode, although that information is available in their data (Princeton Affect and Time Use Survey). Besides, Bertrand (2013) does not use tiredness as a criterion for the unpleasant experience when constructing a U-index using the ATUS WB, the same dataset as ours. Similar to tiredness, meaningfulness is also excluded because it is not a true emotion parallel to the other affect questions. As Angner (2010) and Brülde (2007) argue, meaningfulness measures a cognitive state or a positive attitude towards one's life, which corresponds to cognitive views of SWB.

positive affective dimensions minus the average score of negative affective dimensions. Net affect is a common measure of mood in the psychology literature. It provides a cardinal measure of affect and facilitates our interpretation of the overall effect of working at home on employees' emotions.

Samples

We restrict the sample to full-time wage/salary workers[5] who are between 18 and 65 years of age and have at least one activity of working—the ATUS activity classification code 0501—in the ATUS WB. To maintain samples the same for both OLS and fixed-effects estimations, 10 respondents who have only one episode of activity are dropped. In our final sample, more than 99% of the respondents have three episodes of activities, corresponding to three observations, and at least one of the three activities is about working. The nonworking episodes are included in the sample as well to facilitate fixed-effects estimation.

After dropping observations with missing information, we have 11,793 episodes of activities from 3,962 respondents. Table 1 presents the weighted descriptive statistics of various measures of SWB across three categories of activities (nonworking, working at home, and working in the workplace) for the samples of weekdays and weekends/holidays.[6] As shown, the weekday sample has 8,869 episodes, including 359 episodes of working at home and 3,161 episodes of working in the workplace, from 2,979 respondents, and the weekend/holiday sample has 2,924 episodes, including 276 episodes of working at home and 878 episodes of working in the workplace, from 983 respondents. Simply comparing the instantaneous subjective well-being between working at home and working in the workplace, we find that there is no significant difference between these two groups on weekdays, whereas on weekends/holidays, respondents who work at home have significantly lower levels of happiness and pain compared with those who work in the workplace. Nevertheless, this is only a comparison of the summary statistics. To capture the SWB effect of working at home, we need to formally build econometric models so that we can take other confounding factors into account.

Empirical Method

To examine how working at home affects subjective well-being, we employ both ordinary least squares models and individual fixed-effects models. Although an OLS model allows us to assess the effect of individual characteristics on SWB, it is more likely to yield biased results because some unobserved factors, such as individual heterogeneity, may affect workers' SWB and homeworking decisions simultaneously. For example, if people who are more likely to work at home are also those who are more prone to feel tired and stressed, we may underestimate the positive effect of telecommuting. To address the potential heterogeneity, we further employ individual fixed-effects models that rely purely on within-person variation. The fact that the ATUS WB Module selected three activities for each respondent allows us to use fixed-effects models to account not only for individual heterogeneity but also for other common

[5] The ATUS asks respondents to choose "class of worker code" (main job) from the following categories: 1 government, federal; 2 government, state; 3 government, local; 4 private, for profit; 5 private, nonprofit; 6 self-employed, incorporated; 7 self-employed, unincorporated; and 8 without pay. People who choose from categories 1 to 5 are considered as wage/salary workers; that is to say, they are not self-employed.

[6] The descriptive statistics for independent variables are reported in Appendix Table 1. Regardless of samples of weekdays or weekends/holidays, people working at home are older, better educated, and more likely to be Whites and married; they have a higher level of family income and usually work longer hours than those working in the workplace, but episodes of working at home are shorter in duration than episodes of working in the workplace.

factors across the three activities, such as the weather. We do realize that theoretically fixed-effects models cannot correct for the bias generated by unobserved factors that vary across the three activities on the diary day. However, after we control for a large number of activity-level confounders, it is difficult to come up with any unobserved activity-level characteristics that could bias our estimates.

The dependent variables are eight measures of SWB, and the main independent variable is whether the respondent works at home or not. Based on what activity the respondent conducted and where he/she was during the activity, we first create two dummy variables—*working at home* and *nonworking*—to capture the effect of homeworking, and the reference category is working in the official workplace or any other places except home. However, as we discussed earlier, there are two types of homeworking: respondents who stayed at home and conducted formal telework on the diary day (teleworkers) and respondents who had already worked in the workplace on the dairy day but brought work home and conducted informal overtime work at home. Therefore, we further decompose *working at home* into two dummies: *telework and bringing work home*, based on whether the respondent commuted to/from work on that diary day. We consider work-at-home *telework* if the respondent had no episodes of work-related commuting, similar to the telework definition used in previous studies (Pinsonneault and Boisvert 2001; Bailey and Kurland 2002; Golden 2006; Kossek et al. 2006; Morganson et al., 2010). The work is classified as *bringing work home* if respondent worked at home and also reported commuting to/from work on that day.[7] As shown in Figure 1, most teleworkers work at home during 8 am-6 pm, the normal business hours, whereas those who bring work home usually perform the job during 6 pm-11 pm or 5 am-8 am at home.

In addition to the variables indicating working at home or not, we also control for a rich set of factors that might affect SWB. In particular, we include the following individual-level characteristics in the OLS models: age and age squared, gender, race/ethnicity, education, marital status, number of children under age 6, number of children between 6 and 17 years old, family income, school enrollment status, number of disabilities, general health (self-reported health status, having hypertension in the last five years, taking any pain medication on the diary day, and how well rested on the diary day), immigration status, living in a metropolitan statistical area, having more than one job, total hours usually worked per week, industry, occupation and state of residence. The characteristics of the diary day are also controlled for in the OLS estimation, including month, season and year dummies. In the regressions for weekdays, we further control for the day of the week (Monday, Tuesday, and etc.), whereas in the regressions for weekends, a holiday dummy and a Saturday dummy are added. In fixed-effects models, however, we do not control for the above factors because the model itself has already taken the average differences across individuals into account and soaked up all across-person variation.

In both OLS and fixed-effects models, we control for activity-level characteristics in the following way: a dummy indicating interacting with someone during the episode; 17 dummies for major types of activities; 23 dummies for location of activity; dummies for activity start time; episode duration by minutes; and cumulative hours of work from 4 am to the end of this episode on the diary day. We separate the analysis for weekdays from that for weekends/holidays

[7] One limitation of our study is that the survey does not directly ask respondents which type of homeworking they performed. As a result, we distinguish the two types of homeworking by using commuting information, which is not an ideal way. We could not exclude the possibility that bringing work home is misclassified as telework in the sample of weekends/holidays because bringing work home on Friday and finishing it during weekends are mistakenly treated as teleworking on weekends according to our definition.

because working patterns are different. The results are weighted using the Well-Being Module final activity weights. Because up to three episodes of activities are observed for each respondent, robust standard errors are clustered at an individual level.

4. Results

OLS Results

To begin with, we regress several dimensions of subjective well-being on indicators for working at home using OLS models. Table 2 reports the results for the sample of weekdays. As shown in Panel A, compared with working in the workplace, working at home is associated with a higher likelihood of having an unpleasant experience (Column 1, only significant at the 10% level) and a lower level of net affect (Column 2), both of which are aggregate measures of happiness, pain, sadness, and stress. When taking a look at each dimension of SWB, we find some conflicting evidence. On the one hand, working at home on weekdays is associated with less happiness (Column 3) and more stress (Column 6). On the other hand, working at home improves SWB by reducing sadness (Column 5) and tiredness (Column 7). No significant effect is seen on pain and meaningfulness (Columns 4 and 8).

The contradicting results on different dimensions of SWB can be explained by at least two factors. First, the heterogeneity of working patterns may explain what we have discovered. As we discussed earlier, both bringing work home and telework belong to homeworking, but the SWB effects of these two types of homeworking may be different. It is very likely that one type of homeworking is related to positive emotions whereas the other is related to negative affect. Second, individual heterogeneity may lead to biased estimates and conflicting results as well.

To explore the heterogeneity among homeworking patterns, we replace the dummy of working at home with two dummies—bringing work home and telework—and present the results in Table 2, Panel B. We find that the lower level of net affect associated with working at home on weekdays is mainly due to bringing work home, whereas telework is not significantly associated with net affect or unpleasantness (Columns 1 and 2). For every single dimension of SWB, the results show that, in comparison to working in the workplace, bringing work home is associated with less happiness, sadness, and tiredness. Telework also decreases tiredness, but it increases stress at the same time. There is no significant difference in SWB between working in the workplace and conducting nonworking activities on weekdays. Note that distinguishing these two types of homeworking do not fully explain the conflicting evidence on some dimensions of SWB; therefore, we estimate fixed-effects models to see whether it is due to individual heterogeneity in the next subsection.

Similar to the layout in Table 2, Table 3 presents OLS results for the sample of weekends/holidays. As shown in Columns (1) and (2) of Panel A, working at home leads to a higher level of unpleasantness and a lower level of net affect than working in the workplace. This negative effect on emotions is primarily because of the telework conducted on weekends/holidays, which is associated with less happiness and more stress (shown in Panel B). We fail to detect any significant effect of bringing work home on SWB, which is very likely because the treatment sample is too small: according to our definition, only 52 out of 2924 episodes involve bringing work home in the sample of weekends/holidays. Compared to working in the workplaces, conducting nonworking activities on weekends/holidays significantly increases individuals' net affect (mainly happiness), reduces stress, and makes individual feel more meaningful.

Overall, both Tables 2 and 3 indicate a negative effect of working at home on SWB: on weekdays it is bringing work home that mainly contributes to the decrease in subjective well-being; while on weekends/holidays the detrimental effect is dominated by telework. The only positive effect of working at home is that both bringing work home and telework on weekdays are associated with less tiredness in comparison to working in the workplace.

Fixed-Effects Results

Next, we estimate fixed-effects models which take individual heterogeneity into account, and present the results in Tables 4 and 5 for the samples of weekdays and weekends/holidays, respectively. As shown in Panel A of Table 4, working at home on weekdays is associated with a higher likelihood of having an unpleasant experience and a lower level of net affect than working in the workplace. In particular, working at home leads to less happiness and more stress. Respondents also consider that working at home is less meaningful than working in the workplace, though the difference is only significant at the 10% level. The results in Panel B indicate that bringing work home is associated with lower levels of happiness and meaningfulness, while telework results in more stress. In the meanwhile, people who conduct telework feel less tired than those who work in the workplace. In contrast to the inconsistent effects of bringing work home on different dimensions of affect that we observed in Table 2, we have seen a consistent, negative effect of bringing work home on SWB in Table 4, which indicates individual heterogeneity exists and that fixed-effects results are more reliable. As to the aggregate measures of SWB, Panel B shows that bringing work home leads to a reduction in net affect and an increase in unpleasantness (the result on unpleasantness is only significant at the 10% level). Although telework is associated with more unpleasantness and less net affect, neither results are significant at the convention level. Furthermore, in comparison to working in the workplace, nonworking activities on weekdays reduce pain, which has not been detected by OLS models.

Table 5 reports the results for the sample of weekends/holidays. As shown, working at home is associated with a higher likelihood of feeling unpleasant and a lower level of net affect, which is mainly due to telework. We also find that telework on weekends/holidays increases stress and sadness. Although telework on weekends/holidays is considered more meaningful, the result is not significant at the convention level. We fail to detect any significant difference in SWB between bringing work home and working in the workplace. As to nonworking activities, they are associated with more happiness, less stress, and a higher level of net affect than working in the workplaces. Overall, fixed-effects results in Table 5 are very similar to OLS results in Table 3.

To sum up, both OLS and fixed-effects models indicate that working at home instead of in the workplace reduces the level of net affect and increases the chance of having unpleasant feelings in general. After differentiating two different patterns of homeworking, we find that bringing work home on weekdays is associated with a lower level of net affect due to a reduction in happiness. In the sample of weekends/holidays, however, we fail to detect any significant effect of bringing work home on SWB, which is probably because only a small sample of episodes involves bringing work home. In contrast, telework on weekdays has no significant effect on unpleasantness or net affect, although it does increase stress. On weekends/holidays, telework is associated with more unpleasantness, less net affect, and more stress. Therefore, telework significantly increases stress in both samples of weekdays and weekends/holidays. The

main positive SWB effect of working at home we discover is that telework on weekdays reduces tiredness.

Note that in the sample of weekends/holidays, telework, which we define as working at home and having no work-related commuting on that diary day, should be considered as bringing work home in the case that workers bring the work home on Friday and finish it on weekends. Due to the data limitation, however, we could not differentiate those cases of bringing work home from telework in the sample of weekends/holidays. To be consistent, we use the same definition of telework and bringing work home in both samples of weekdays and weekends. Since some episodes of bringing work home may be misclassified as telework, we cannot exclude the possibility that the effect of telework on SWB in the sample of weekends/holidays we observe is driven up by the actual bringing work home. This could also be used to explain why we have a small sample of episodes of bringing work home on weekends/holidays.

Subsample Analysis: Results for Samples of Women and Men

If working at home affects SWB mainly through the channel of work–life balance, then women may value homeworking arrangements more highly than men or be more negatively affected by homeworking than men given that women are more likely to take care of children or do some household chores while working at home (Wellman et al. 1996; Sullivan and Lewis 2001). To further examine whether the effects of working from home varies across gender, we split the sample into males and females. The OLS results for the sample of males are presented in Table 6 and for females in Table 7.[8] As shown in Table 6, compared to working in the workplaces, bringing work home has no significant effect on men's SWB. Telework reduces men's sadness and tiredness in the sample of weekdays and is considered more meaningful in the sample of weekends/holidays. In contrast, for females (shown in Table 7), bringing work home is associated with a lower level of net affect, less happiness, and more stress in the sample of weekdays, but it has no significant SWB effect in the sample of weekends/holidays. As to telework, it increases women's stress on both weekdays and weekends/holidays and also leads to a higher probability of feeling unpleasant and a lower level of net affect on weekends/holidays, which is caused by less happiness.

We report the fixed-effects results for males in Table 8 and for females in Table 9. For males, shown in Table 8, bringing work home on weekdays is associated with a higher likelihood of having an unpleasant experience and lower levels of net affect and meaningfulness, while it has no significant effect on SWB in the sample of weekends/holidays. Telework increases men's stress on both weekdays and weekends/holidays and is associated with a lower level of net affect on weekends/holidays. As we can see, for males, the fixed-effects results are slightly different from the OLS results. The fixed-effects results for females, shown in Table 9, also indicate a negative SWB effect of working from home, similar to the fixed-effects results for males. Women report that telework on weekdays is related to more stress and less meaningfulness, although both only significant at the 10% level. Telework on weekends leads to more stress for women as well. Bringing work home has no significant effect on the aggregate measures of SWB, although it does increase happiness and pain on weekends/holidays.

Overall, OLS results illustrate the gender difference: bringing work home has no significant SWB effect for males, but is associated with less happiness and more stress for

[8] Due to space limitation, in the subsample analysis we only report results for regressions that differentiate teleworking from bringing work home. The results for regressions that do not specify these two types of homeworking are available upon request.

females. Males feel less sad and tired when conducting telework on weekdays and consider it more meaningful on weekends/holidays, while females feel less happy and more stressed. For fixed-effects models, however, we fail to observe such a gender difference. Instead, we find that telework increases stress for both men and women regardless of weekdays or weekends/holidays. Bringing work home on weekdays is associated with less happiness and meaningfulness for men, but it has no significant SWB effect for women. The dramatic changes of results across these two models imply the existence of individual heterogeneity.

5. Conclusions

Using data from the 2010, 2012, and 2013 American Time Use Survey Well-Being Modules, this paper examines how wage/salary workers' subjective well-being varies between working at home and working at their employers' premises. We find that, compared to working in the official workplace, working at home is associated with a lower level of net affect and a higher probability of having unpleasant feelings, both of which are aggregate measures of affect. Furthermore, we decompose homeworking into telework and bringing work home and show that these two types of homeworking have different impacts on SWB. Our results indicate that bringing work home to finish on weekdays and telework on weekends/holidays are associated with a lower level of net affect and more unpleasant feelings. We further take a look at every single dimension of SWB and find evidence that, in comparison to working in the workplace, telework increases stress regardless of whether it is done on weekdays or weekends/holidays. The only beneficial effect we discover is that telework reduces tiredness on weekdays. To sum up, most of the effects we find on SWB are negative, and evidence of the positive effect of working from home on SWB is extremely limited. As to the gender difference, although OLS models imply a strong gender difference in the impact of homeworking—men are better off and women are worse off—the fixed-effects models fail to provide such evidence. The results from the fixed-effects models show that, for both men and women, telework increases stress, whereas bringing work home on weekdays leads to less happiness and more meaningfulness for men, but not for women.

Our results on bringing work home are consistent with Ojala, Nätti, and Anttila (2014), who find that employees doing overtime, unpaid work at home are more likely to be affected by negative emotions. The lower levels of SWB associated with bringing work home can be explained by the fact that the work–family interface leads to more conflicts in the family and increased negotiations between couples. For example, homeworkers may not cope well with their children or other family members when they work from home; there might be conflicts in the family about time arrangement between working hours, household chores, and leisure. Since we have controlled for the cumulative hours worked from 4 am to the end of each episode on the diary day, the longer hours of working itself cannot explain this negative impact on SWB.

For telework, we find evidence that it reduces tiredness, which is more likely because of the time and energy saved on commuting. Greater flexibility, more autonomy, and the potentially higher productivity from telework could also help explain the beneficial effect of telework on tiredness. However, our study also indicates that well-intentioned telework with the aim of increasing flexibility actually results in more stress for employees. The higher level of stress associated with telework is probably due to increased conflicting demands of work versus the home. This result is consistent with a new finding on remote work, which was published jointly

by Eurofound and the International Labour Office (ILO) in 2017 and has received wide coverage in the Media. The ILO surveyed workers from 15 OECD countries (including the U.S.) to see how telecommuting affects people's lifestyle. They find that remote workers tend to work longer hours and tend to blend personal and professional lives, leading to higher levels of stress.

Although our research cannot resolve the whole debate on home-based work, it at least adds more empirical evidence on the inconclusive, divergent results found for flexible working. The varying impacts of telework and bringing work home on SWB highlight the importance of differentiating between formal teleworking and informal overtime working at home in evaluating homeworking. Our results also underscore the need for employers to reconsider the potential SWB impacts of homeworking and to rethink the benefits of telework for their employees. We enlighten both employers and policy makers on the need to recognize the stress associated with telework and the negative net affect related to informal, overtime work at home.

Our study sheds light on policies related to flexible work and overtime work as well. To enhance life quality, the government or employers should provide more support to homeworkers, such as childcare, care for aging parents, physical support like sufficient space to work, and a social network that can sustain homeworking practices. These supports would enable homeworkers to cope better with the loneliness, stress, and work–family conflicts and help them develop boundaries in time and space between the worlds of home and work in order to maintain high levels of self-motivation. Last, it is necessary to regulate long working hours in order to foster a suitable work–life balance and to maintain harmonious family relationships.

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References

Allard, M. D., & Lacey, J. (2009). Work-at-home patterns by occupation. *Issues in Labor Statistics Papers* 09-02.

Angner, E. (2010). Subjective well-being. *The Journal of Socio-Economics*, 39(3), 361-368.

Apgar IV, M. (1998). The alternative workplace: Changing where and how people work. *Harvard Business Review*, 76(3), 121-136.

Azarbouyeh, A., & Naini, S. (2014). A study on the effect of teleworking on quality of work life. *Management Science Letters,* 4(6), 1063-1068.

Bailey, D. E., & Kurland, N. B. (2002). A review of telework research: Findings, new directions, and lessons for the study of modern work. *Journal of organizational behavior,* 23(4), 383-400.

Baines, S., & Gelder, U. (2003). What is family friendly about the workplace in the home? The case of self-employed parents and their children. *New Technology, Work and Employment* 18(3), 223-234.

Bell, L. A., & Freeman R. B. (2001). The incentive for working hard: explaining hours worked differences in the US and Germany. *Labour Economics* 8(2),181–202.

Bertrand, M. (2013). Career, family, and the well-being of college-educated women. *American Economic Review*, 103(3), 244-50.

Brülde, B. (2007). Happiness theories of the good life. *Journal of Happiness Studies*, 8(1), 15-49.

Dambrin, C. (2004). How does telework influence the manager-employee relationship? *International Journal of Human Resources Development and Management,* 4(4), 358-374.

Edwards, L. N., & Field-Hendrey, E. (2001). Work site and work hours: the labor force flexibility of home-based female workers. In S. Houseman and A. Nakamura (Ed.), *Working time in comparative perspective: Life-cycle working time and nonstandard work*, *Vol 2*. (pp. 251-291). Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.

———, & ———. (2002). Home-based work and women's labor force decisions. *Journal of Labor Economics* 20(1), 170–200

Eurofound and the International Labour Office (2017), *Working anytime, anywhere: The effects on the world of work,* Publications Office of the European Union, Luxembourg, and the International Labour Office, Geneva.

Fenner, G. H., & Renn, R.W. (2010). Technology-assisted supplemental work and work-to-family conflict: The role of instrumentality beliefs, organizational expectations and time management. *Human Relations,* 63 (1), 63-82.

Felstead, A., Jewson, N., Phizacklea, A., & Walters, S. (2002). Opportunities to work at home in the context of work-life balance. *Human Resource Management Journal*, 12(1), 54-76.

Felstead, A., Jewson, N., & Walters, S. (2005). *Changing places of work*. Palgrave Macmillan

Fonner, K. L., & Roloff, M. E. (2010). Why teleworkers are more satisfied with their jobs than are office-based workers: When less contact is beneficial. *Journal of Applied Communication Research,* 38(4), 336-361.

Gajendran, R. S. & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: meta-analysis of psychological mediators and individual consequences. *Journal of Applied Psychology,* 92(6), 1524-1541.

Gimenez-Nadal, J. I., Molina, J. A., & Velilla, J. (2018). Telework, the timing of work, and instantaneous well-being: evidence from time use data. No. 11271. IZA Discussion Papers.

Golden, T. D. & Veiga, J. F. (2005). The impact of extend of telecommuting on job satisfaction: resolving inconsistent findings. *Journal of Management* 31(2), 301-318.

Golden, T. D. (2006). The role of relationships in understanding telecommuter satisfaction. *Journal of Organizational Behavior*, 27(3), 319–340.

Gottholmseder, G., Nowotny, K., Pruckner, G. J., & Theurl, E. (2009) Stress perception and commuting. *Health Economics* 18(5), 559-576.

Hardill, I., & Green, A. (2003). Remote working: altering the spatial contours of work and home in the new economy. *New Technology, Work and Employment* 18(3), 212–222.

Hoque, K. & Kirkpatrick, I. (2003), Non-standard employment in the management and professional workforce: training, consultation and gender implications. *Work, Employment and Society* 17(4), 667–689.

Kahneman, D., Krueger, A. B., Schkade, D. A., Schwarz, N., & Stone, A. A. (2004). A survey method for characterizing daily life experience: The day reconstruction method. *Science* 306(5702), 1776-1780.

Kahneman, D., & Krueger, A. B. (2006). Developments in the measurement of subjective well-being. *Journal of Economic Perspectives*, 20(1), 3-24.

Kemerling, K. (2002). The effects of telecommuting on employee productivity: a perspective from managers, office workers and telecommuters. PhD Dissertation, Department of Management, Colorado Technical University

Kossek, E. E., Lautsch, B. A., & Eaton, S. C. (2006). Telecommuting, control, and boundary management: Correlates of policy use and practice, job control, and work–family effectiveness. *Journal of Vocational Behavior* 68(2), 347-367.

Krueger, A. B., Kahneman, D., Schkade, D., Schwarz, N., & Stone, A. A. (2009). National time accounting: The currency of life. In *Measuring the subjective well-being of nations: national accounts of time use and well-being* (pp. 9-86). University of Chicago Press.

Mann, S., & Holdsworth, L. (2003). The psychological impact of teleworking: stress, emotions and health. *New Technology, Work and Employment*, 18(3), 196-211.

Mirchandani, K. (2000). "The best of both worlds" and "cutting my own throat": contradictory images of home-based work. *Qualitative Sociology* 23(2), 159-182.

Moore, J. (2006). Homeworking and work-life balance: does it add to quality of life? *Revue Européenne de Psychologie Appliquée/European Review of Applied Psychology* 56(1), 5-13.

Morganson, V. J., Major, D. A., Oborn, K. L., Verive, J. M., & Heelan, M. P. (2010). Comparing telework locations and traditional work arrangements: Differences in work-life balance support, job satisfaction, and inclusion. *Journal of Managerial Psychology*, 25(6), 578–595.

Nätti, J., Tammelin, M., Anttila, T. & Ojala, S. (2011). Work at home and time use in Finland. *New Technology, Work and Employment* 26(1), 68-77.

Pinsonneault, A., & Boisvert, M. (2001). The impacts of tele- commuting on organizations and individuals: A review of the literature. In Johnson, N. J. (Ed.), *Telecommuting and virtual offices: Issues and opportunities* (pp. 163–185). Hershey, PA: Idea Group Publishing.

Oettinger, G. S. (2011) The incidence and wage consequences of home-based work in the United States, 1980–2000. *Journal of Human Resources* 46(2), 237-260.

Ojala, S. (2011). Supplemental work at home among Finnish wage earners: involuntary overtime or taking the advantage of flexibility? *Nordic Journal of Working Life Studies* 1(2), 77.

Ojala, S., Nätti, J. & Anttila, T. (2014). Informal overtime at home instead of telework: increase in negative work–family interface. *International Journal of Sociology and Social Policy* 34 (1/2), 69-87.

Pannenberg, M. (2005). Long-term effects of unpaid overtime: evidence from west Germany. *Scottish Journal of Political Economy* 52(2), 177–93.

Raghuram, S., & Wiesenfeld, B. (2004). Work-nonwork conflict and job stress among virtual workers. *Human Resource Management*, 43(2-3), 259–277.

Russell, H., O'Connell, J. & McGinnity, F. (2009), The impact of flexible working arrangements on work-life conflict and work pressure in Ireland. *Gender, Work and Organization*, 16(1), 73-97.

Roberts, J., Hodgson, R., & Dolan, P. (2011). "It's driving her mad": Gender differences in the effects of commuting on psychological health. *Journal of Health Economics*, 30(5), 1064–1076

Safirova, E. (2002). Telecommuting, traffic congestion, and agglomeration: a general equilibrium model. *Journal of Urban Economics*, 52, 26-52.

Schroeder, C., & Warren, R. S. (2004). The Effect of Home-based Work on Earnings. Unpublished paper. *University of Georgia.*

Shockley, K. & Allen, T. (2007), When flexibility helps: another look at the availability of flexible work arrangements and work–family conflict, *Journal of Vocational Behavior*, 71(3), 479-493.

Song, Y. (2009). Unpaid Work at Home. *Industrial Relations* 48(4), 578-588.

Sparrowe, R. T., Liden, R. C., Wayne, S. J., & Kraimer, M. L. (2001). Social networks and the performance of individuals and groups. *Academy of Management Journal* 44(2), 316-325.

Standen, P., Daniels, K., & Lamond, D. (1999). The home as a workplace: Work–family interaction and psychological well-being in telework. *Journal of Occupational Health Psychology*, 4(4), 368–381.

Sullivan, C., & Lewis, S. (2001). Home-based telework, gender, and the synchronization of work and family: perspectives of teleworkers and their co-residents. *Gender, Work & Organization*, 8(2), 123-145.

Sullivan, C. (2003). What's in a name? Definitions and conceptualisations of teleworking and homeworking. *New Technology, Work and Employment* 18(3), 158-165.

Sullivan, C. & Lewis, S. (2006). Work at home and the work–family interface. In F. Jones, R.J. Burke and M. Westman (Eds.), *Managing the work-home interface: a psychological perspective* (pp. 143-162). London: Psychology Press

Sullivan, C. (2012). Remote working and work-life balance. In *Work and quality of life* (pp. 275-290). Springer, Dordrecht.

Van der Meulen, N., van Baalen, P. & van Heck, E. (2014). No place like home: The effect of telework gains on knowledge worker productivity. In *Academy of management proceedings* (Vol. 2014, No.1, pp.15944). Briarcliff Manor, NY 10510: Academy of Management.

Weinert, C., Maier, C. & Laumer, S. (2015) Why are teleworkers stressed? An empirical analysis of the causes of telework-enabled stress. In *Wirtschaftsinformatik* (pp. 1407-1421).

Wellman, B., Salaff, J., Dimitrova, D., Garton, L., Gulia, M., & Haythornthwaite, C. (1996). Computer networks as social networks: Collaborative work, telework, and virtual community. *Annual Review of Sociology*, 22(1), 213-238.

Wener, R.E., Evans, G.W., Phillips, D.,& Nadler, N. (2003). Running for the 7:45: the effects of public transit improvements on commuter stress. *Transportation*, 30(2), 203–220.

Wheatley, D., Hardill, I., & Green, A. (2008). Mobile work and challenges for public policy. In D. Hislop (ed.), *Mobility and technology in the workplace* (pp. 227–239). Oxford: Routledge.

Wheatley, D. (2012). Good to be home? Time-use and satisfaction levels among home-based teleworkers. *New Technology, Work and Employment* 27(3), 224-241.

Wight, V. & Raley, S. (2009). When home becomes work: work and family time among workers at home. *Social Indicators Research 93*(1), 197–202

Wilson, M., & Greenhill, A. (2004). Gender and teleworking identities in the risk society: a research agenda. *New Technology, Work and Employment* 19(3), 207-221.

Table 1 Descriptive Statistics of the Dependent Variables

	Weekdays			Weekends/Holidays		
	Nonworking	Working at home	Working in the workplace	Nonworking	Working at home	Working in the workplace
Unpleasantness	0.11	0.31 [a]	0.27 [b]	0.08	0.30 [a]	0.27 [b]
Net affect	3.69	2.37 [a]	2.55 [b]	3.97	2.36 [a]	2.64 [b]
Happiness	4.46	3.71 [a]	3.87 [b]	4.70	3.62 [a]	3.98 [b c]
Pain	0.76	0.75	0.80	0.74	0.70	1.01 [b c]
Sadness	0.46	0.50	0.67 [b]	0.44	0.66	0.77 [b]
Stress	1.08	2.76 [a]	2.50 [b]	1.01	2.44 [a]	2.24 [b]
Tiredness	2.80	2.38 [a]	2.41 [b]	2.36	2.33	2.68 [b]
Meaningfulness	4.27	4.25	4.40	4.27	4.40	4.55 [b]
# of episodes	5,349	359	3,161	1,770	276	878

Note: a denotes that the means are different between the episodes of nonworking and working at home at 5 percent level of significance; b denotes that the means are different between the episodes of nonworking and working in the workplace at 5 percent level of significance; c denotes that the means are different between the episodes of working at home and working in the workplace at 5 percent level of significance. The means are weighted using final activity weights.

Table 2 Working at Home and Subjective Well-being, Weekdays, OLS Estimates

Panel A. Baseline model

VARIABLES	(1) Unpleasantness	(2) Net affect	(3) Happiness	(4) Pain	(5) Sadness	(6) Stress	(7) Tiredness	(8) Meaningfulness
Working at home	0.078*	-0.426**	-0.336**	0.020	-0.236**	0.486**	-0.597***	-0.279
	(0.045)	(0.211)	(0.160)	(0.135)	(0.116)	(0.198)	(0.190)	(0.193)
Nonworking	-0.044	0.476	0.344	-0.324	0.209	-0.282	0.674	-0.604
	(0.145)	(0.680)	(0.602)	(0.441)	(0.387)	(0.436)	(0.550)	(0.537)
Observations	8,869	8,869	8,869	8,869	8,869	8,869	8,869	8,869
R-squared	0.197	0.313	0.213	0.318	0.168	0.287	0.298	0.170
No. of respondents	2,979	2,979	2,979	2,979	2,979	2,979	2,979	2,979

Panel B. Dummies for bringing work home and telework

VARIABLES	(1) Unpleasantness	(2) Net affect	(3) Happiness	(4) Pain	(5) Sadness	(6) Stress	(7) Tiredness	(8) Meaningfulness
Bringing work home	0.098	-0.617**	-0.549***	-0.009	-0.323**	0.535*	-0.500**	-0.361
	(0.063)	(0.298)	(0.212)	(0.193)	(0.147)	(0.315)	(0.246)	(0.304)
Telework	0.067	-0.310	-0.207	0.037	-0.184	0.456**	-0.656***	-0.229
	(0.055)	(0.245)	(0.189)	(0.159)	(0.140)	(0.210)	(0.227)	(0.201)
Nonworking	-0.043	0.464	0.330	-0.326	0.203	-0.279	0.680	-0.610
	(0.145)	(0.679)	(0.601)	(0.441)	(0.388)	(0.437)	(0.551)	(0.538)
Observations	8,869	8,869	8,869	8,869	8,869	8,869	8,869	8,869
R-squared	0.197	0.313	0.214	0.318	0.168	0.287	0.298	0.170
No. of respondents	2,979	2,979	2,979	2,979	2,979	2,979	2,979	2,979

Note: Weighted results are reported. Robust clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The following control variables are included in all panels: age and its square; a female dummy; three dummies for race/ethnicity; five education dummies; two dummies for marital status; number of children under age 6; number of children 6-17 years old; five dummies for family income; a dummy for school enrollment; number of disabilities; four dummies for self-rated general health status; a dummy for having hypertension in the last five years; a dummy for taking pain medication on the diary day; three dummies for how well rested the respondent felt on the diary day; an immigrant dummy; an SMSA dummy; a dummy for having more than one job; three dummies for total hours usually worked per week; twelve industry dummies; nine occupation dummies; state dummies; year dummies; three season dummies; four dummies for the day of the week (Monday, Tuesday, and etc.); episode duration; a dummy for interacting with anyone during the episode; cumulative hours of work from 4 am to the end of this episode; 17 dummies for major time-use categories; dummies for activity start time; and 23 dummies for location of activity.

Table 3 Working at Home and Subjective Well-being, Weekends/Holidays, OLS Estimates

Panel A. Baseline model

VARIABLES	(1) Unpleasantness	(2) Net affect	(3) Happiness	(4) Pain	(5) Sadness	(6) Stress	(7) Tiredness	(8) Meaningfulness
Working at home	0.126**	-0.708**	-0.369	0.220	0.120	0.676**	-0.183	0.351
	(0.060)	(0.311)	(0.234)	(0.193)	(0.198)	(0.285)	(0.259)	(0.273)
Nonworking	-0.014	1.384**	0.907**	-0.008	-0.215	-1.208**	-0.814*	1.211***
	(0.103)	(0.584)	(0.420)	(0.343)	(0.326)	(0.562)	(0.483)	(0.425)
Observations	2,924	2,924	2,924	2,924	2,924	2,924	2,924	2,924
R-squared	0.303	0.387	0.311	0.446	0.292	0.364	0.402	0.263
No. of respondents	983	983	983	983	983	983	983	983

Panel B. Dummies for bringing work home and telework

VARIABLES	(1) Unpleasantness	(2) Net affect	(3) Happiness	(4) Pain	(5) Sadness	(6) Stress	(7) Tiredness	(8) Meaningfulness
Bringing work home	-0.015	-0.003	-0.095	-0.129	-0.196	0.047	-0.546	-0.012
	(0.076)	(0.483)	(0.469)	(0.239)	(0.227)	(0.393)	(0.367)	(0.565)
Telework	0.166**	-0.909***	-0.448**	0.320	0.210	0.855***	-0.079	0.454*
	(0.066)	(0.321)	(0.227)	(0.203)	(0.214)	(0.302)	(0.272)	(0.260)
Nonworking	-0.006	1.340**	0.890**	0.014	-0.195	-1.168**	-0.791	1.234***
	(0.105)	(0.588)	(0.422)	(0.343)	(0.331)	(0.555)	(0.489)	(0.427)
Observations	2,924	2,924	2,924	2,924	2,924	2,924	2,924	2,924
R-squared	0.305	0.388	0.312	0.447	0.293	0.366	0.403	0.264
No. of respondents	983	983	983	983	983	983	983	983

Note: Weighted results are reported. Robust clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The following control variables are included in all panels: age and its square; a female dummy; three dummies for race/ethnicity; five education dummies; two dummies for marital status; number of children under age 6; number of children 6-17 years old; five dummies for family income; a dummy for school enrollment; number of disabilities; four dummies for self-rated general health status; a dummy for having hypertension in the last five years; a dummy for taking pain medication on the diary day; three dummies for how well rested the respondent felt on the diary day; an immigrant dummy; an SMSA dummy; a dummy for having more than one job; three dummies for total hours usually worked per week; twelve industry dummies; nine occupation dummies; state dummies; year dummies; three season dummies; a Saturday dummy; a holiday dummy; episode duration; a dummy for interacting with anyone during the episode; cumulative hours of work from 4 am to the end of this episode; 17 dummies for major time-use categories; dummies for activity start time; and 23 dummies for location of activity.

Table 4 Working at Home and Subjective Well-being, Weekdays, Fixed Effects Estimates

Panel A. Baseline model

VARIABLES	(1) Unpleasantness	(2) Net affect	(3) Happiness	(4) Pain	(5) Sadness	(6) Stress	(7) Tiredness	(8) Meaningfulness
Working at home	0.087**	-0.515***	-0.401***	-0.020	-0.021	0.383**	-0.206	-0.342*
	(0.039)	(0.173)	(0.131)	(0.083)	(0.080)	(0.181)	(0.177)	(0.177)
Nonworking	0.254	-0.764	-0.633	-0.396**	0.361	0.428	0.091	-0.832
	(0.185)	(0.720)	(0.579)	(0.156)	(0.463)	(0.472)	(0.470)	(0.590)
Observations	8,869	8,869	8,869	8,869	8,869	8,869	8,869	8,869
R-squared	0.816	0.866	0.830	0.909	0.838	0.854	0.834	0.798
No. of respondents	2,979	2,979	2,979	2,979	2,979	2,979	2,979	2,979

Panel B. Dummies for bringing work home and telework

VARIABLES	(1) Unpleasantness	(2) Net affect	(3) Happiness	(4) Pain	(5) Sadness	(6) Stress	(7) Tiredness	(8) Meaningfulness
Bringing work home	0.102*	-0.651***	-0.523***	0.028	0.121	0.236	0.040	-0.439*
	(0.056)	(0.237)	(0.155)	(0.120)	(0.098)	(0.296)	(0.269)	(0.227)
Telework	0.071*	-0.378*	-0.278	-0.069	-0.165	0.533***	-0.456**	-0.244
	(0.042)	(0.210)	(0.171)	(0.089)	(0.106)	(0.163)	(0.194)	(0.213)
Nonworking	0.256	-0.780	-0.648	-0.390**	0.379	0.410	0.122	-0.844
	(0.186)	(0.721)	(0.579)	(0.157)	(0.464)	(0.474)	(0.472)	(0.591)
Observations	8,869	8,869	8,869	8,869	8,869	8,869	8,869	8,869
R-squared	0.816	0.866	0.830	0.909	0.838	0.854	0.834	0.798
No. of respondents	2,979	2,979	2,979	2,979	2,979	2,979	2,979	2,979

Note: Weighted results are reported. Robust clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The following control variables are included in all panels: episode duration; a dummy for interacting with anyone during the episode; cumulative hours of work from 4 am to the end of this episode; 17 dummies for major time-use categories; dummies for activity start time; and 23 dummies for location of activity.

Table 5 Working at Home and Subjective Well-being, Weekends/Holidays, Fixed Effects Estimates

Panel A. Baseline model

VARIABLES	(1) Unpleasantness	(2) Net affect	(3) Happiness	(4) Pain	(5) Sadness	(6) Stress	(7) Tiredness	(8) Meaningfulness
Working at home	0.138***	-0.610**	-0.200	0.135	0.237*	0.858***	-0.279	0.311
	(0.051)	(0.273)	(0.215)	(0.121)	(0.133)	(0.254)	(0.243)	(0.244)
Nonworking	-0.047	1.612**	1.018**	-0.236	-0.499	-1.046**	-0.564	0.205
	(0.095)	(0.711)	(0.512)	(0.324)	(0.596)	(0.489)	(0.894)	(0.483)
Observations	2,924	2,924	2,924	2,924	2,924	2,924	2,924	2,924
R-squared	0.809	0.872	0.844	0.916	0.847	0.857	0.843	0.819
No. of respondents	983	983	983	983	983	983	983	983

Panel B. Dummies for bringing work home and telework

VARIABLES	(1) Unpleasantness	(2) Net affect	(3) Happiness	(4) Pain	(5) Sadness	(6) Stress	(7) Tiredness	(8) Meaningfulness
Bringing work home	0.074	0.023	0.274	0.124	0.194	0.435	-0.292	-0.204
	(0.054)	(0.475)	(0.422)	(0.134)	(0.175)	(0.465)	(0.359)	(0.398)
Telework	0.155***	-0.777***	-0.325	0.138	0.248*	0.969***	-0.276	0.447*
	(0.058)	(0.269)	(0.203)	(0.131)	(0.142)	(0.262)	(0.247)	(0.269)
Nonworking	-0.039	1.536**	0.961*	-0.235	-0.494	-0.996**	-0.563	0.267
	(0.097)	(0.716)	(0.514)	(0.325)	(0.598)	(0.475)	(0.896)	(0.469)
Observations	2,924	2,924	2,924	2,924	2,924	2,924	2,924	2,924
R-squared	0.809	0.872	0.845	0.916	0.847	0.857	0.843	0.820
No. of respondents	983	983	983	983	983	983	983	983

Note: Weighted results are reported. Robust clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The following control variables are included in all panels: episode duration; a dummy for interacting with anyone during the episode; cumulative hours of work from 4 am to the end of this episode; 17 dummies for major time-use categories; dummies for activity start time; and 23 dummies for location of activity

Table 6 Working at Home and Subjective Well-being, Men, OLS Estimates

Panel A. Sample of Weekdays

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	Unpleasantness	Net affect	Happiness	Pain	Sadness	Stress	Tiredness	Meaningfulness
Bringing work home	0.093	-0.339	-0.364	0.068	-0.335*	0.193	-0.274	-0.597
	(0.067)	(0.359)	(0.254)	(0.218)	(0.193)	(0.344)	(0.325)	(0.427)
Telework	0.048	-0.159	-0.278	-0.217	-0.365**	0.225	-1.024***	-0.251
	(0.062)	(0.276)	(0.222)	(0.169)	(0.175)	(0.243)	(0.246)	(0.253)
Nonworking	-0.149	0.827	0.700	0.272	0.443	-1.095**	0.607	-0.484
	(0.137)	(0.766)	(0.620)	(0.313)	(0.375)	(0.459)	(0.520)	(0.602)
Observations	5,069	5,069	5,069	5,069	5,069	5,069	5,069	5,069
R-squared	0.212	0.347	0.249	0.322	0.205	0.319	0.313	0.200
No. of respondents	1,702	1,702	1,702	1,702	1,702	1,702	1,702	1,702

Panel B. Sample of Weekends/Holidays

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	Unpleasantness	Net affect	Happiness	Pain	Sadness	Stress	Tiredness	Meaningfulness
Bringing work home	-0.038	0.185	0.068	-0.028	-0.328	0.004	-0.633	0.755
	(0.116)	(0.583)	(0.429)	(0.274)	(0.333)	(0.548)	(0.509)	(0.475)
Telework	0.078	-0.455	-0.198	0.115	0.210	0.446	-0.330	0.937***
	(0.084)	(0.402)	(0.313)	(0.217)	(0.250)	(0.400)	(0.364)	(0.357)
Nonworking	-0.189	1.795**	1.161**	0.032	-1.001**	-0.933	-1.046	0.735
	(0.115)	(0.704)	(0.583)	(0.361)	(0.433)	(0.906)	(0.827)	(0.710)
Observations	1,687	1,687	1,687	1,687	1,687	1,687	1,687	1,687
R-squared	0.367	0.456	0.398	0.484	0.382	0.409	0.449	0.408
No. of respondents	567	567	567	567	567	567	567	567

Note: Weighted results are reported. Robust clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The following control variables are included in all panels: age and its square; three dummies for race/ethnicity; five education dummies; two dummies for marital status; number of children under age 6; number of children 6-17 years old; five dummies for family income; a dummy for school enrollment; number of disabilities; four dummies for self-rated general health status; a dummy for having hypertension in the last five years; a dummy for taking pain medication on the diary day; three dummies for how well rested the respondent felt on the diary day; an immigrant dummy; an SMSA dummy; a dummy for having more than one job; three dummies for total hours usually worked per week; twelve industry dummies; nine occupation dummies; state dummies; year dummies; three season dummies; episode duration; a dummy for interacting with anyone during the episode; cumulative hours of work from 4 am to the end of this episode; 17 dummies for major time-use categories; dummies for activity start time; and 23 dummies for location of activity. In Panel A, four dummies for the day of the week (Monday, Tuesday, and etc.) are included. In Panel B, a Saturday dummy and a holiday dummy are included.

Table 7 Working at Home and Subjective Well-being, Women, OLS Estimates

Panel A. Sample of Weekdays

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	Unpleasantness	Net affect	Happiness	Pain	Sadness	Stress	Tiredness	Meaningfulness
Bringing work home	0.123	-0.983**	-0.745***	-0.057	-0.245	1.014**	-0.584*	-0.048
	(0.091)	(0.399)	(0.284)	(0.269)	(0.209)	(0.414)	(0.352)	(0.383)
Telework	0.108	-0.653	-0.082	0.490*	0.165	1.057***	0.025	0.030
	(0.102)	(0.444)	(0.326)	(0.285)	(0.242)	(0.339)	(0.411)	(0.301)
Nonworking	0.059	0.514	-0.262	-2.195***	-0.787	0.653	-0.167	-1.022
	(0.359)	(1.542)	(1.322)	(0.436)	(0.855)	(0.863)	(0.413)	(1.150)
Observations	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800
R-squared	0.262	0.372	0.290	0.429	0.228	0.325	0.357	0.223
No. of respondents	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277

Panel B. Sample of Weekends/Holidays

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	Unpleasantness	Net affect	Happiness	Pain	Sadness	Stress	Tiredness	Meaningfulness
Bringing work home	0.081	-0.180	-0.241	-0.374	-0.121	0.313	-0.663	-0.993
	(0.107)	(0.741)	(0.661)	(0.354)	(0.275)	(0.558)	(0.452)	(0.634)
Telework	0.250***	-1.228***	-0.629**	0.400	-0.024	1.421***	0.074	0.126
	(0.092)	(0.472)	(0.302)	(0.305)	(0.297)	(0.413)	(0.401)	(0.366)
Nonworking	0.152	1.286	0.759	-0.090	-0.026	-1.467**	-0.142	-0.023
	(0.165)	(0.789)	(0.566)	(0.549)	(0.457)	(0.727)	(0.736)	(0.717)
Observations	1,237	1,237	1,237	1,237	1,237	1,237	1,237	1,237
R-squared	0.441	0.522	0.433	0.610	0.453	0.528	0.558	0.355
No. of respondents	416	416	416	416	416	416	416	416

Note: Weighted results are reported. Robust clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The following control variables are included in all panels: age and its square; three dummies for race/ethnicity; five education dummies; two dummies for marital status; number of children under age 6; number of children 6-17 years old; five dummies for family income; a dummy for school enrollment; number of disabilities; four dummies for self-rated general health status; a dummy for having hypertension in the last five years; a dummy for taking pain medication on the diary day; three dummies for how well rested the respondent felt on the diary day; an immigrant dummy; an SMSA dummy; a dummy for having more than one job; three dummies for total hours usually worked per week; twelve industry dummies; nine occupation dummies; state dummies; year dummies; three season dummies; episode duration; a dummy for interacting with anyone during the episode; cumulative hours of work from 4 am to the end of this episode; 17 dummies for major time-use categories; dummies for activity start time; and 23 dummies for location of activity. In Panel A, four dummies for the day of the week (Monday, Tuesday, and etc.) are included. In Panel B, a Saturday dummy and a holiday dummy are included.

Table 8 Working at Home and Subjective Well-being, Men, Fixed Effects Estimates

Panel A. Sample of Weekdays

VARIABLES	(1) Unpleasantness	(2) Net affect	(3) Happiness	(4) Pain	(5) Sadness	(6) Stress	(7) Tiredness	(8) Meaningfulness
Bringing work home	0.159***	-0.587**	-0.524***	0.195	0.164	-0.171	0.211	-0.455**
	(0.057)	(0.253)	(0.172)	(0.127)	(0.116)	(0.397)	(0.455)	(0.223)
Telework	0.061	-0.333	-0.236	-0.169	-0.118	0.579***	-0.475*	-0.099
	(0.050)	(0.241)	(0.206)	(0.104)	(0.111)	(0.195)	(0.245)	(0.261)
Nonworking	0.107	-0.202	-0.278	-0.368	0.284	-0.143	-0.286	-0.289
	(0.213)	(0.803)	(0.440)	(0.231)	(0.609)	(0.550)	(0.429)	(0.488)
Observations	5,069	5,069	5,069	5,069	5,069	5,069	5,069	5,069
R-squared	0.810	0.870	0.839	0.915	0.838	0.856	0.822	0.796
No. of respondents	1,702	1,702	1,702	1,702	1,702	1,702	1,702	1,702

Panel B. Sample of Weekends/Holidays

VARIABLES	(1) Unpleasantness	(2) Net affect	(3) Happiness	(4) Pain	(5) Sadness	(6) Stress	(7) Tiredness	(8) Meaningfulness
Bringing work home	0.089	-0.588	-0.554	-0.083	0.319	-0.135	0.035	0.076
	(0.077)	(0.494)	(0.457)	(0.183)	(0.276)	(0.402)	(0.466)	(0.463)
Telework	0.150*	-0.747**	-0.353	-0.010	0.298*	0.894***	-0.320	0.472
	(0.077)	(0.356)	(0.277)	(0.152)	(0.172)	(0.341)	(0.263)	(0.370)
Nonworking	-0.163	2.195	1.146	-1.152**	-1.678	-0.317	-2.305***	1.174*
	(0.202)	(1.770)	(1.236)	(0.586)	(1.188)	(0.506)	(0.849)	(0.697)
Observations	1,687	1,687	1,687	1,687	1,687	1,687	1,687	1,687
R-squared	0.828	0.884	0.858	0.912	0.839	0.859	0.856	0.835
No. of respondents	567	567	567	567	567	567	567	567

Note: Weighted results are reported. Robust clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The following control variables are included in all panels: episode duration; a dummy for interacting with anyone during the episode; cumulative hours of work from 4 am to the end of this episode; 17 dummies for major time-use categories; dummies for activity start time; and 23 dummies for location of activity.

Table 9 Working at Home and Subjective Well-being, Women, Fixed Effects Estimates

Panel A. Sample of Weekdays

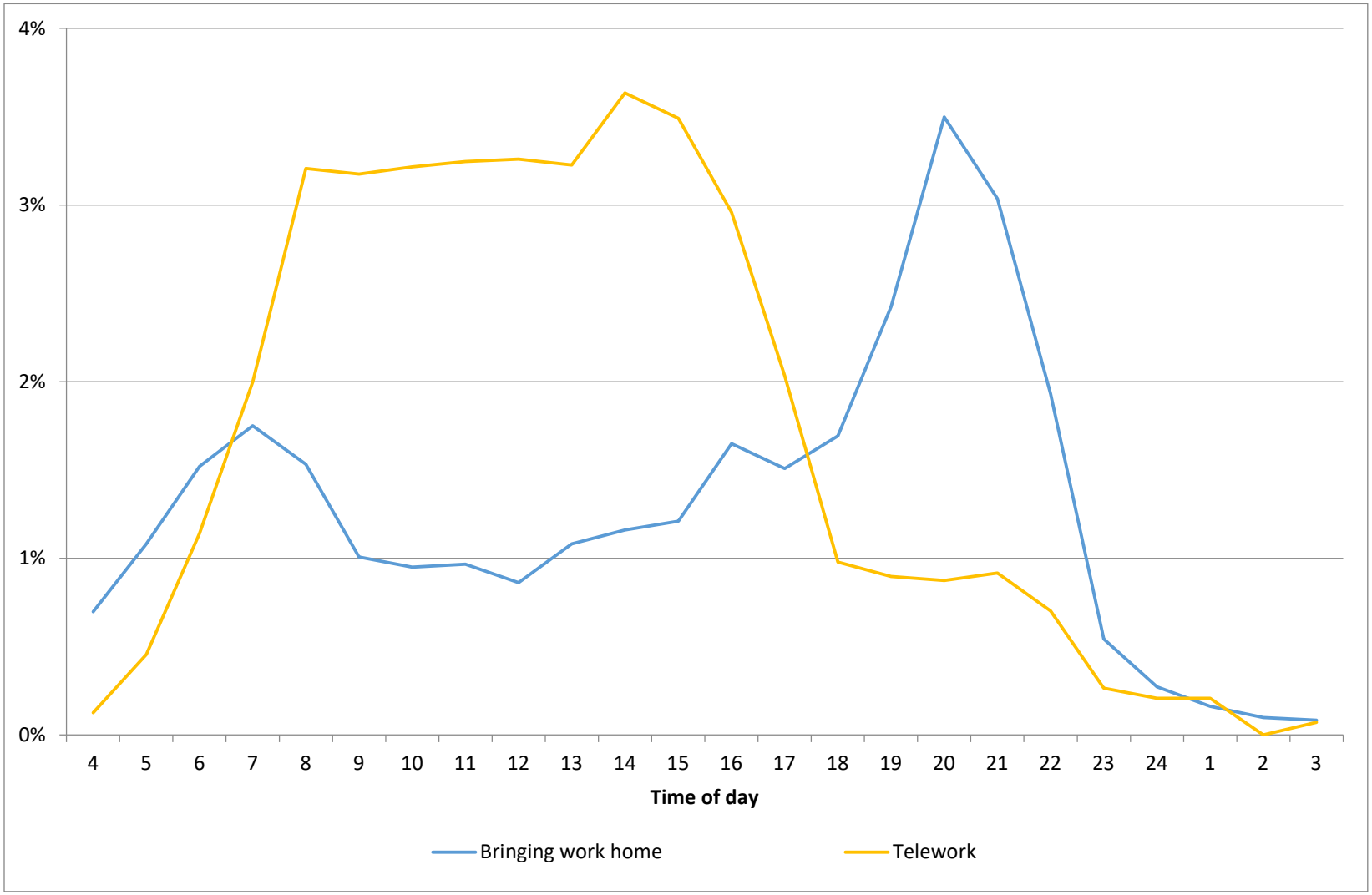
VARIABLES	(1) Unpleasantness	(2) Net affect	(3) Happiness	(4) Pain	(5) Sadness	(6) Stress	(7) Tiredness	(8) Meaningfulness
Bringing work home	-0.024	-0.344	-0.262	-0.225	-0.009	0.480	-0.099	-0.241
	(0.096)	(0.396)	(0.260)	(0.215)	(0.159)	(0.336)	(0.232)	(0.394)
Telework	0.084	-0.429	-0.325	0.155	-0.339	0.496*	-0.338	-0.544*
	(0.075)	(0.352)	(0.265)	(0.137)	(0.249)	(0.285)	(0.238)	(0.311)
Nonworking	0.444**	-1.039	-0.850	-0.554**	-0.059	1.181	0.662	-1.330
	(0.217)	(1.106)	(1.293)	(0.261)	(1.122)	(0.853)	(0.695)	(1.235)
Observations	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800
R-squared	0.831	0.870	0.831	0.908	0.852	0.859	0.858	0.813
No. of respondents	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277

Panel B. Sample of Weekends/Holidays

VARIABLES	(1) Unpleasantness	(2) Net affect	(3) Happiness	(4) Pain	(5) Sadness	(6) Stress	(7) Tiredness	(8) Meaningfulness
Bringing work home	-0.031	0.651	1.056**	0.504**	0.054	0.659	-0.498	-0.488
	(0.086)	(0.711)	(0.526)	(0.249)	(0.208)	(0.784)	(0.615)	(0.662)
Telework	0.145*	-0.735	-0.212	0.291	0.296	0.984**	-0.141	0.398
	(0.083)	(0.466)	(0.332)	(0.243)	(0.245)	(0.409)	(0.439)	(0.340)
Nonworking	0.009	1.062*	0.881**	0.111	0.509	-1.164**	1.313**	-0.104
	(0.118)	(0.597)	(0.401)	(0.260)	(0.367)	(0.508)	(0.514)	(0.385)
Observations	1,237	1,237	1,237	1,237	1,237	1,237	1,237	1,237
R-squared	0.805	0.870	0.843	0.930	0.876	0.876	0.843	0.816
No. of respondents	416	416	416	416	416	416	416	416

Note: Weighted results are reported. Robust clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The following control variables are included in all panels: episode duration; a dummy for interacting with anyone during the episode; cumulative hours of work from 4 am to the end of this episode; 17 dummies for major time-use categories; dummies for activity start time; and 23 dummies for location of activity.

Figure 1 Percentage of teleworkers and those bringing work home among all salary/wage workers who worked on the day on weekdays by time of day, 2016 ATUS



Appendix

Table A1 Descriptive Statistics of Key Independent Variables

Variables	Weekdays	Weekends/Holidays
Working at home	0.052 (0.004)	0.091 (0.008)
Bringing work home	0.020 (0.003)	0.018 (0.004)
Telework	0.033 (0.003)	0.073 (0.007)
Working in the workplace	0.717 (0.008)	0.613 (0.016)
Nonworking	0.231 (0.007)	0.296 (0.015)
Female	0.411 (0.010)	0.383 (0.017)
Age	41.20 (0.26)	40.10 (0.46)
White	0.688 (0.009)	0.617 (0.017)
Black	0.093 (0.005)	0.122 (0.013)
Hispanic	0.150 (0.007)	0.190 (0.014)
Other	0.068 (0.006)	0.072 (0.008)
Elementary school	0.025 (0.003)	0.026 (0.004)
Some high school	0.032 (0.003)	0.062 (0.008)
High school	0.260 (0.009)	0.309 (0.017)
Some college	0.270 (0.009)	0.297 (0.017)
College	0.252 (0.009)	0.175 (0.012)
Graduate	0.161 (0.007)	0.131 (0.011)
Single	0.363 (0.010)	0.362 (0.017)
Married	0.581 (0.010)	0.577 (0.017)
Partnered	0.056 (0.005)	0.061 (0.008)
Number of children under age 6	0.227 (0.009)	0.307 (0.028)
Number of children 6-17 years old	0.484 (0.018)	0.563 (0.041)
Enrolled in school	0.044 (0.004)	0.063 (0.010)
Immigrant	0.146 (0.006)	0.214 (0.016)
Number of disabilities	0.030 (0.004)	0.057 (0.012)
SMSA	0.846 (0.007)	0.847 (0.012)
Family income: Missing	0.066 (0.004)	0.083 (0.009)
Less than $30,000	0.148 (0.007)	0.179 (0.013)
$30,000-60,000	0.260 (0.008)	0.306 (0.018)
$60,000-100,000	0.265 (0.009)	0.234 (0.015)
$100,000-150,000	0.157 (0.008)	0.130 (0.012)
More than $150,000	0.105 (0.006)	0.068 (0.008)
Usual hours worked:		
Hours vary	0.043 (0.004)	0.072 (0.011)
35-40 hours per week	0.551 (0.010)	0.441 (0.018)
41-60 hours per week	0.355 (0.009)	0.385 (0.017)
61 hours or more	0.050 (0.004)	0.102 (0.011)
Duration in hours	3.99 (0.06)	4.15 (0.16)
Cumulative work hours	6.78 (0.06)	6.10 (0.21)
More than one job	0.098 (0.006)	0.179 (0.015)
Interacted with anyone	0.780 (0.006)	0.737 (0.014)
Took pain medication	0.228 (0.008)	0.209 (0.015)
Felt very well rested	0.316 (0.009)	0.372 (0.018)
Felt somewhat rested	0.443 (0.010)	0.393 (0.017)
Felt a little rested	0.171 (0.007)	0.175 (0.014)
Felt not at all rested	0.070 (0.005)	0.059 (0.009)
# of episodes	8,869	2,924

Note: All statistics are weighted. Standard errors are in parentheses.