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IZA DP No. 17634

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ISSN: 2365-9793

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ABSTRACT

Homebound Happiness? Teleworkability of Jobs and Emotional Well-Being During Labor and Non-labor Activities

This paper examines the relationship between flexible working arrangements (FWA) and workers' affective well-being (AWB), using data from the American Time-Use Survey (ATUS) and the Occupational Information Network (O*NET). We analyze differences in workers' emotional experiences during paid work, unpaid work, and leisure depending on the general availability of FWA within their occupation. Our findings reveal a significant negative association between teleworkability and AWB during labor activities for women, resulting in reduced day-average emotional well-being if jobs are also time-flexible. In contrast, we do not find significant associations between FWA and AWB during paid work for men. Additionally, we find no evidence of systematic spillovers to the AWB in non-labor activities for both men and women. Further nuanced findings regarding parents and the role of time flexibility underscore potential gender differences in the impact of FWA on well-being.

JEL Classification: J22, J81, D91, I31

Keywords: flexible working arrangements, affective well-being, telework, working from home, work and family, work-life balance, gender differences

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1 Introduction

Over the past decades, telework and other flexible working arrangements (FWA) have seen substantial growth, evolving from a niche practice to a mainstream employment model. In 2003, less than 20% of U.S. workers reported to have worked from home at least partially. Since then, digitization and advancements in information and communication technology have facilitated the asynchronous and remote exchange of information, thereby easing the temporal and locational restrictions of collaborative work. The COVID-19 pandemic acted as a major catalyst for the transition to telework, as companies worldwide were forced to adopt remote working models. In 2021, 38% of all U.S. employees did some of their work from home. However, even after the immediate impact of the pandemic has receded, these arrangements have persisted. By 2023, the share of U.S. employees who work remotely still amounts to 35% (Bureau of Labor Statistics, 2024a).[1] Driven by technological advancements and changing societal expectations, FWA have become an integral element of modern employment relationships. FWA can offer many benefits to employees, contributing to improved work-life balance and increased job satisfaction (Choudhury et al., 2024). Many employees value flexible work options highly, often prioritizing them over salary increases (Mas and Pallais, 2017). Flexibility allows employees to manage personal responsibilities more effectively and has the potential to reduce stress. Remote work can reduce commuting, providing employees additional time for personal and professional activities Nagler et al.; Cowan.

When integrated into suitable work environments, remote work can increase productivity, as employees benefit from fewer distractions and the ability to work in environments that suit their preferences (Bloom et al., 2015). When not managed optimally, however, remote work might cause productivity losses, e.g., by attracting low-productivity workers (Emanuel and Harrington, 2024).

While FWA offer numerous benefits, they also present significant challenges for employees. Remote workers often experience social isolation due to reduced face-to-face interactions with colleagues, which can lead to feelings of loneliness and disengagement (Allen et al., 2015). Flexible working hours can blur the boundaries between work and personal life, leading to overwork and burnout, as employees may find it difficult to "switch off" from work (Ashforth et al., 2000; Golden et al., 2006). Furthermore, career progression may be hindered, which suggests that remote workers might be overlooked for promotions or key projects due to the lack of visibility

[1] The prevalence of remote work differs strongly between demographic groups. For example, only 9% of U.S. workers with less than a high school degree worked at least partly from home in 2003, and this share has risen to only 11 percent in 2023. Among college-educated employees, this share has risen from 33% to 52% in the same time period (Bureau of Labor Statistics, 2024a).

in the workplace (Glass and Noonan, 2016).

Not only is the relationship between FWA and workers' well-being theoretically ambiguous, existing empirical studies also do not provide clear insights. There does not seem to be a clear relationship between FWA and life satisfaction or mental health (Oakman et al., 2020). The association between FWA and affective well-being is also ambiguous (Giménez-Nadal et al., 2020; Giménez-Nadal and Velilla, 2024). Given that it remains an open question whether FWA have positive or negative consequences, it is worthwhile to further examine their relationship with workers' well-being empirically.

In this paper, we examine the relationship between FWA and workers' affective well-being. Using data from the well-being module of the American Time-Use Survey (ATUS), we analyze the specific emotional experience of employees when they are engaged in paid work. Moreover, we also observe how workers feel outside of work, e.g., when doing chores, meeting friends, or pursuing their hobbies. In our analysis, we focus on FWA that give workers more freedom to choose the location of work (teleworkability). Since the potential of having the option to work remotely to contribute to higher well-being might depend also on how flexibly workers can choose the timing of their work, we extend these analyses by including time flexibility as a moderating factor. While the ATUS provides detailed diaries of people's activities and emotional experiences, it does not contain information on the general availability of FWA. Hence, we match the individual ATUS diaries with data from the Occupational Information Network (O*NET), which provides a large set of occupational characteristics on nearly the entire universe of occupations in the U.S. economy. This match allows us to identify to what extent the affective well-being of workers differs between occupations in which employees have more or less temporal and locational flexibility concerning their work.

Our analysis extends existing research on the relationship between job characteristics, in particular flexible work arrangements, and subjective well-being. We make four specific contributions to this literature. First, instead of examining globally evaluative well-being measures (e.g. life or job satisfaction), we analyze worker's affective well-being at specific points in time during a day. This gives a more direct measure of people's experienced utility (Kahneman and Krueger, 2006). It also allows us to distinguish between the direct effects of FWA on the emotional experience of work itself and potential spillovers into domestic work and leisure activities. Second, we use data on the general availability of FWA instead of their actual use on a specific day. The latter is more likely to be endogenous and driven by unobservable factors that might also be related to well-being (cf. Giménez-Nadal and Velilla, 2024). FWA allow employees to change the way they structure their workdays and workweeks. The consequences might not

only be felt on days when workers actually work remotely but might also affect how workers experience their work and leisure on other days. Hence, examining the general availability of FWA allows for a more comprehensive evaluation of their importance for workers. Third, we distinguish between the temporal and the locational dimensions of FWA. Having more flexibility concerning the timing of work might be related differently to well-being than the choice of the location of work. To capture potential interrelationships between these two dimensions of FWA, we also examine their interaction empirically. Fourth, since FWA might be more important for persons who have to balance work and family obligations, we conduct additional analyses focusing on employees with dependent children.

Our results indicate that there is a significant negative association between teleworkability and affective well-being during labor activities for women. The negative association during labor activities additionally translates into a significantly negative association between teleworkability and experienced utility over the entire day for women in time-flexible jobs. We do not find any significant associations for men during labor activities as well as no systematic spillovers into other activities such as unpaid work or leisure.

Our paper is structured as follows. In the next section, we discuss findings from related studies. In Section 3, we outline theoretical considerations of how FWA impact subjective well-being. Section 4 contains a description of the data and empirical methods. In Section 5, we present our empirical findings. Section 6 concludes.

2 Related literature

Work and affective well-being There is overwhelming evidence that employment is an essential determinant of subjective well-being. This holds in particular for the cognitive, evaluative dimension of well-being. Becoming unemployed is among the events that are most detrimental to life satisfaction (for surveys, see Hetschko et al., 2021; Suppa, 2021). However, the role of employment for the affective dimension of subjective well-being appears less positive. Even if people consider employment an important component of a satisfied life, time-use and well-being studies suggest that they do not enjoy the time they actually have to spend working. Kahneman et al. (2004) report that working is rated the second-worst activity (measured by the strength of positive emotions) experienced during the day in their sample of American women (only commuting was ranked worse). Subsequent studies have obtained similar findings for other countries and with other datasets (Han and Kaiser, 2024; Knabe et al., 2010; Bryson and MacKerron, 2017; Flèche and Smith, 2017; Wolf et al., 2022). Overall, working activities are associated with weaker positive and stronger negative emotions than leisure activities. However, working episodes are

also perceived as more meaningful and rewarding than most non-work activities (White and Dolan, 2009; Wolf et al., 2022). This suggests that people choose to work not because working itself is particularly enjoyable, but because it helps them to fill their lives with sense and purpose (besides generating income), which contributes to the cognitive dimension of well-being.

Telework and affective well-being When asked directly about their preferences for working from home, people generally seem to have a relatively positive view of teleworking (Moens et al., 2022), which is also reflected in people's labor supply choices (Mas and Pallais, 2017). A number of studies have examined the relationship between subjective well-being and teleworking. These studies typically focus on cognitive aspects of well-being, such as life or job satisfaction. The findings are mixed. In a comprehensive survey of pre-Covid studies, Oakman et al. (2020) do not find a clear impact of remote work on well-being. Instead, the relationship appears complex and strongly influenced by systemic moderators, such as the degree of organizational support available to employees, social connections outside of work, and demands of the home environment. Vega et al. (2015) find that telework is positively related to job satisfaction and perceived job performance of employees in a US government agency. Based on an experiment conducted with Chinese call-center employees, Bloom et al. (2015) find that telework increases work satisfaction and performance. Bertoni et al. (2021) find negative effects of remote work for respondents who have children at home, while positive effects are found for childless persons.

Panel studies comparing pre- and post-Covid phases suggest that remote work reduces the life satisfaction and mental health of workers (e.g. Cheng et al. (2021); Gueguen and Senik (2023) for the United Kingdom and Senik et al. (2024) for Germany). These adverse effects seem particularly strong for women with school-age children, which might be Covid-specific and related to the contemporary home-schooling needs during lockdowns. Similar to Bloom et al. (2015), Choudhury et al. (2024) utilize an experimental setting in which they randomize hybrid work models during Covid-related restrictions in an NGO in Bangladesh and find that especially a mixed model with a medium amount of days spend in the office / at home increases the job satisfaction and productivity of workers.

Besides its relation with cognitive well-being, telework has been shown to be associated with workers' affective experiences as well. Using the American Time-Use Survey, Giménez-Nadal et al. (2020) find that teleworkers spend less time on work-related activities (e.g. commuting) and work more at irregular times of the day (evenings, weekends) than persons who do not work remotely. They also find that teleworking men feel better than commuters. They do not find evidence for a clear relationship between telework and emotional well-being for women. In their interpretation, women might benefit less from telework because they generally commute

less (and so benefit less from not having to commute when teleworking) and use the additional time to do more domestic work (while men spend more time on leisure, which might have a positive effect on their enjoyment of work as well). Song and Gao (2020) point out that one should also distinguish between two different kinds of telework. Workers might spend entire days working from home, freeing the time they would otherwise spend commuting. However, they might also take office work home and thus devote additional time to working at home on evenings or weekends. Telework during evenings is found to be harmful for emotional well-being, while regular telework is not. This negative effect seems to be even stronger for parents than for childless persons. Using UK Time-Use data, Lu and Zhuang (2023) find that men who often work from home enjoy their working time more and are more satisfied with their jobs than men who work primarily outside their homes. They do not detect such differences for women. Using time-use data from the UK, Giménez-Nadal and Velilla (2024) find that teleworking is associated with less work time overall. However, they find that remote work is associated with less enjoyment of working time for men, while they observe no difference among women. Both men and women enjoy their leisure time less when working from home, which Giménez-Nadal and Velilla (2024) interpret as suggesting that telework blurs the line between work and non-work obligations. Overall, the literature on the relationship between FWA and well-being provides mixed evidence. While employees seem to perceive FWA as potentially beneficial for their well-being and are willing to sacrifice part of their wage for having the option to work remotely, it is not clear that actual telework has a positive impact on their subjective well-being. Many studies indicate that FWA could be more beneficial for men than for women and they seem to be less beneficial for parents than for childless individuals.

3 Theoretical considerations

For workers, the labor supply decision is a trade-off between market (paid) work, domestic (unpaid) work, and leisure (Gronau, 1977). In traditional labor supply models, optimal work hours are determined by equating the marginal utility of working an additional hour in the market, spending one more hour doing unpaid domestic work, or having an additional hour of leisure. While such models explain the determination of the total amount of work hours, they typically do not capture how much flexibility workers have to optimally schedule the amount of work hours and the location of work during the day. A rationale for ignoring scheduling and location issues might be that firms and workers face constraints to an optimal organization of work (Possenriede et al., 2016). Workers often cannot set their working hours and their place of work independently of others. They work in teams within their firms, and they interact directly

with clients, customers, or business partners. Certain production processes require uninterrupted operations. There might be legal restrictions that regulate working hours and schedules. This means that the scheduling of work hours cannot solely follow from the balancing of workers' consumption and leisure preferences. On the other hand, also the timing of domestic work and leisure is not constraint-free. Parents have to consider their children's daycare and school schedules. Shops and public services have limited opening hours. Even hobbies might have to be coordinated with friends' schedules. Hence, marginal benefits and costs of different time uses do not only depend on the total amount of hours spent on different kinds of activities but also on how constrained workers are in moving these activities to times and places they fit best.

Flexible work arrangements (FWA) weaken some of these constraints. Whether this benefits workers depends on who gains flexibility. If working time regulations are weakened or managerial directive powers concerning the place of work are strengthened, this raises firms' abilities to schedule work according to their technical or customer-induced needs, which does not necessarily have to benefit workers. If workers are given more discretion over their time and place of work, this should allow them to schedule their individual work and leisure activities in a way that is more in line with their individual preferences and personal obligations. The standard consumption-leisure choice model can be extended to incorporate temporal and locational flexibility (Golden, 1996, 2006; Possenriede et al., 2016). When workers have more flexibility, this expands their set of feasible choices of work-leisure arrangements. Independently of how workers make use of these choices, whether by rescheduling time or locations or working more or less total hours, having a larger choice set should have a non-negative effect on workers' utility.

In these models, utility is a measure of the general desirability of one's life circumstances, taking into account, inter alia, the enjoyment of experiences during work and leisure activities. FWA allow workers to reschedule their work and non-work activities such that they are less in conflict with each other. While this might mean that some workers enjoy both types of activities more than before, this does not have to be the case. The flexibility to reschedule could also be used to shift one kind of activity to a time slot where it might be less enjoyable if that frees up a time slot that could be even more enjoyably spent with some other kind of activity. For example, parents might shift some work hours from the late afternoon to the late evening, even if working is less enjoyable then, to allow them to spend more time with their children in the afternoon. Their overall well-being increases (otherwise they would not reschedule), even though the enjoyment of their working time falls.

Behavioral and psychological models provide further arguments why the relationship between FWA and well-being on and off work is theoretically ambiguous. The *Paradox of Choice*

(Barry, 2004) suggests that while increasing the set of options might seem beneficial, it can actually lead to decision overload, uncertainty, and dissatisfaction. Having too many choices can cause stress, as people worry about whether they made the best possible decision. Applied to the context of FWA, teleworkability and time flexibility offer more choices regarding where and when to work, but these additional decisions can lead to cognitive overload, especially for individuals who already juggle multiple roles, such as work and family responsibilities, and ultimately reduce their overall well-being. *Work-Life-Balance Theory* suggests that increased flexibility can enhance work-life balance by giving employees more control over their schedules. For example, the ability to work from home can help accommodate personal responsibilities like childcare, reducing role conflict and improving well-being (Hill et al., 1996). However, flexibility can also blur the boundaries between work and personal life, making it difficult to disconnect from work and potentially leading to stress (Golden et al., 2006) and role overload (Ashforth et al., 2000). *Self-Determination Theory* posits that well-being is contingent on the fulfillment of three psychological needs: autonomy, competence, and relatedness (Ryan and Deci, 2000). FWA enhance autonomy by allowing employees to control their work environment and also support competence by enabling them to work in environments that minimize distractions and play to their strengths (Gagné and Deci, 2005). However, telework may challenge the need for relatedness by reducing social interactions, potentially impacting well-being negatively (Baumeister and Leary, 1995; Allen et al., 2015). The *Conservation-of-Resources Theory* explains how individuals strive to protect and maintain valuable resources, such as time, energy, and emotional well-being (Hobfoll, 1989). While FWA can conserve resources, e.g., by eliminating commutes (Cowan, 2024; Hobfoll, 2001), poorly managed boundaries can lead to resource depletion, where work intrudes on personal time, reducing opportunities for recovery and diminishing the quality of leisure activities (Sonnentag and Fritz, 2015).

Summing up these considerations, we conclude that the expected impact of FWA on worker well-being is theoretically ambiguous. It depends on who gains flexibility – workers or employers. If workers gain more freedom, a rational-choice approach predicts that their overall well-being increases. However, even a voluntary and rational rescheduling of work might lead to time allocations where workers sacrifice enjoyment in some activities to be able to enjoy others more, such that the well-being effect on specific activities is ambiguous. While FWA have the potential to enhance well-being by improving work-life balance, increasing autonomy, and conserving resources, these benefits depend on effective boundary management to prevent work from causing role conflicts and decision overload. Hence, whether FWA benefit workers' well-being and how it affects their enjoyment of particular activities is an empirical question.

4 Data

4.1 Time Use and Affective Well-being

We use data from the American Time Use Survey (ATUS) which has been conducted by the U.S. Bureau of Labor Statistics annually since 2003. The ATUS is the first federally administered, continuous survey on time use in the United States. The survey collects information on how much time people spend on various everyday activities. ATUS participants are randomly selected from households that have completed their eighth month of interviews for the Current Population Survey (CPS).

In the ATUS, respondents participate once and report how they spent their time, where they were, and who they were with on the day prior to the interview. In 2010, 2012, 2013, and 2021[2], the ATUS additionally included a Well-Being Module based on the "Day Reconstruction Method" (Kahneman et al., 2004). In this module, participants are asked to report on the emotions they felt during three randomly chosen episodes to measure their emotional/affective well-being during these activities (see below for more details).

We restrict the sample to all employed respondents aged 18 to 64 who participated in the ATUS Well-Being Module. We additionally restrict the sample to respondents with valid information on all relevant variables. The sample consists of 45,658 observed episodes (with well-being information) for a total of 15,586 individuals.[3] Summary statistics for the estimation sample on the individual level can be found in column (1) of Table A.2 in the supplementary material. 46% of the individuals in our sample are women. The average age is 40.4 years, 84% are born in the U.S., 59% have a partner in the HH, and 15% live with a child under the age of 6. Columns (2) and (3) contain summary statistics separately for men and women.

Table 1 gives an overview over all observed episodes, grouped by activities, of the individuals in our sample as well as only those episodes observed in the WB module. We group the activity codes provided in the ATUS into four categories: labor/paid work, unpaid work, leisure, and other activities.[4] We define unpaid work as any care or household-related activity, including child- as well as eldercare, housework (such as cleaning and cooking), as well as all sorts of household-related errands, such as grocery shopping and using household or professional services

[2] We will discuss the problems arising from the fact that our time period includes the onset of the Covid-pandemic and can roughly be separated into a pre-Covid period and a period during the pandemic (which we will call "post-Covid" for simplification) as well as sensitivity checks corresponding to this in Section 5.4.

[3] In a second step, which will be discussed in more detail in section 5.4 we will further restrict our sample to parents, i.e. all individuals with at least one child under the age of 18 living in the household. This sub-sample consists of 19,695 observed episodes for a total of 6,721 individuals.

[4] Labor activities only capture the actual work activity as well as the activity codes "socialising, relaxing and leisure as part of job", "income-generating hobbies" and "job search activities". Commuting to work and (unpaid) breaks during work are captured as traveling and eating and drinking, respectively.

Table 1: Descriptive Statistics - ATUS Episodes by Activity Type

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All Activities			**Activities in WB Module**				
	Obs.	Share in %	Female Share	Obs.	Share in %	Net	Affect Pos.	Neg.
Labor/Paid Work	**21,074**	**8.93**	**43.34**	**4,763**	**12.85**	**2.76**	**4.09**	**1.33**
Unpaid Work	**64,711**	**19.70**	**58.64**	**11,249**	**21.70**	**3.28**	**4.30**	**1.03**
Childcare	18,307	5.01	60.68	2,746	4.82	3.93	4.99	1.07
Elder care	853	0.36	51.53	80	0.25	3.39	4.50	1.11
Housework	37,797	11.77	59.06	7,077	13.82	3.13	4.14	1.00
Grocery shopping	5,893	1.88	51.96	1,031	2.04	2.94	3.91	0.97
Using HH or prof. services	1,861	0.68	58.53	315	0.76	2.63	3.92	1.29
Leisure	**49,282**	**16.65**	**46.22**	**9,199**	**19.86**	**3.34**	**4.32**	**0.97**
Socializing	10,237	3.38	53.57	1,919	3.99	4.02	4.92	0.91
Relaxing & Entertainment	33,422	11.51	44.42	6,090	13.53	2.99	4.02	1.02
Sports & Exercise	3,653	1.27	41.04	789	1.71	4.11	4.93	0.82
Religious activity	1,970	0.48	51.10	401	0.62	4.53	5.29	0.75
Other	**157,216**	**54.72**	**48.34**	**20,447**	**45.59**	**3.23**	**4.24**	**1.01**
Sleep and Personal care	56,014	19.57	48.42	150	0.29	2.15	3.72	1.57
Education	1,227	0.65	54.32	270	0.87	2.58	4.10	1.52
Consumer Purchases	5,018	1.53	55.59	884	1.66	3.26	4.17	0.91
Eating and drinking	30,134	10.70	45.12	6,953	15.71	3.50	4.44	0.95
Volunteering	1,374	0.36	57.30	252	0.42	4.17	5.03	0.86
Traveling	63,449	21.91	49.02	11,938	26.64	3.08	4.12	1.03
Observations	**292,283**			**45,658**				

Source: ATUS 2010, 2012, 2013 and 2021, own calculations.
Notes: Columns 2 and 3 contain the shares of episodes (not duration-weighted), grouped by activity types and weighted with ATUS survey weights. Columns 5-8 contain the shares and the average net, positive, and negative affect reported during all episodes of a specific activity type, weighted with survey weights from the Well-Being Module. Unweighted shares and average affect are reported in Table A.1 in the Supplementary Material.

(e.g., banking).

Columns (1) to (3) refer to all episodes of the individuals in our sample while columns (4) to (8) refer to the episodes in the WB module. The descriptive statistics report the numbers and shares of episodes in a specific activity type and are not weighted with the episode duration, instead the shares are weighted with the survey weights provided by the ATUS that adjust for demographic characteristics, the day of the week, and response rate differences across demographic groups.[5]. The table shows that due to the exclusion of sleeping and grooming activities from the WB module, all other activities are slightly over-represented in the estimation sample. While e.g. 8.93% of episodes in the full diaries are work or work-related activities, this share would be 12.85% in the well-being module. The most commonly observed activity is traveling (21.91%), followed by sleeping and personal care (19.57%), housework (11.77%), relaxing (11.51%), and eating & drinking (10.70%).

In column (3) of Table 1, we can see that while only 43% of the work episodes are conducted by female respondents, 59% of unpaid work episodes are done by women in the sample. Table A.3 in the Supplementary Material contains more detailed summary statistics on the activity level for the estimation sample.

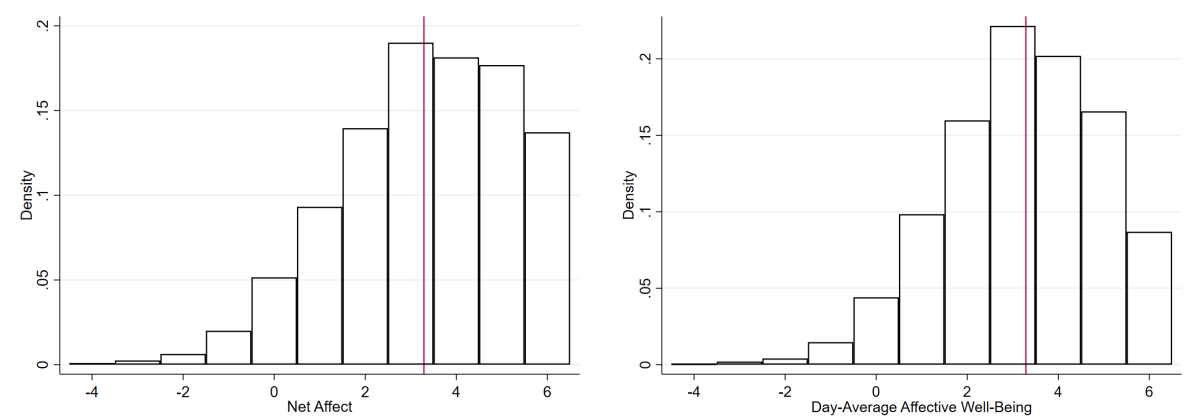
Well-Being The outcome variable in our empirical analyses is affective well-being. ATUS respondents are asked to rate, on a scale from 0 to 6, how happy, meaningful, sad, stressed, in pain, and tired they felt during each queried episode. We follow Kahneman et al. (2004); Kahneman and Krueger (2006) and construct three aggregate measures of affective well-being. *Positive affect* is the arithmetic mean of how happy and meaningful respondents rated an episode. Analogously, *negative affect* is the average rating of sad, stressed, in pain, and tired. The *net affect* is then calculated by subtracting the negative from the positive affect score. In addition to the net affect experienced during single episodes, we also determine respondents' overall level of affective well-being. This is computed as the duration-weighted mean of the net affects of all the episodes that are observed in an individual diary (*day-average affective well-being*).

Figure 1 shows the distributions of the episode-level as well as day-average net affect. Distributions of positive and negative affect scores as well as of the six underlying emotions are shown in Figure A.1 in the Supplementary Material.

Columns (6) to (8) of Table 1 show the weighted mean net, positive, and negative affect for different types of activities. In line with the earlier literature, we can see that labor activities are among the least enjoyable activities (Kahneman et al., 2004; Knabe et al., 2010). Contrary

[5] Information on the average cumulative duration of all episodes corresponding to the specific activity types are reported in Table 6 and discussed in Section 5.3.

Figure 1: Distribution of episode-level and day-average affective well-being



Source: Author's own calculations and illustrations based on ATUS 2010, 2012, 2013 and 2021. *Notes:* Histograms are weighted using ATUS respondent weights.

to Kahneman et al. (2004), respondents in our sample seem to experience relatively high levels of emotional well-being during care activities. This is largely driven by a high level of positive affect, which in turn is due to a high level of perceived meaningfulness of these tasks.[6]

4.2 Flexible Work Arrangements

The focus of this study is on the relationship between well-being and flexible work arrangements. The latter refers to the flexible choice of the location and timing of work. In principle, ATUS provides information on realized telework at the level of episodes and individuals. Since we are able to observe the location at which an activity has been performed, we could distinguish between work episodes that took place at the workplace or at home. We could also distinguish between persons who are observed working remotely on the diary day and those who are not. Nevertheless, using this information would be problematic for various reasons. First, when comparing work activities at home and the workplace, it is likely that the activities, even when observing the same individual, also differ in other dimensions than just the location. Individuals who, for example, experience more stress at work might be more likely to take work home. Second, the observation of remote work on a single, randomly chosen day is a highly inaccurate indicator of the general utilization of remote work opportunities because it relies on the random sampling of individuals during a (tele)work activity. That an individual is not observed to work from home in ATUS on the randomly chosen day does not mean she does not work from home often on other days. Hence, there would be statistical noise in this telework variable, which would cause

[6] When interpreting Table 1, one should keep in mind that the net affect has not been weighted with the duration of the episode. The values should thus be interpreted as the net affect during a representative episode of each activity type and not as the net affect of representative minute spent in each activity type. The net affect experienced during relatively frequent but short episodes (e.g. changing diapers) thus receives a weight that is larger than the fraction of time spent in these episodes, whereas the opposite applies for long, but less frequent episodes (e.g. playing with kids).

attenuation bias. Third, our theoretical reasoning in Section 3 implies that we are not interested in actually realized telework activities but in the potential benefits and costs of being able to choose the location of one's work freely. As we discussed above, locational flexibility does not necessarily have to affect well-being only while actually working from home, but allows more flexible scheduling that could be beneficial or costly for well-being also while working at other locations or during non-work activities.

ATUS and CPS do not contain information on the general availability of flexible work arrangements at the individual level. Hence, we need to use proxy indicators. One possibility would be to use time-use information not on the individual but on the occupation level. For example, one could use the share of work activities conducted remotely in a specific occupation as an indicator of the general teleworkability of that occupation. In principle, this share could be calculated for all occupations for which employees are observed in the ATUS. However, this share would be very inaccurately measured because ATUS is not designed to be representative at the occupation level. For many occupations, there are only few observed individuals. If we want to use only occupation-level information for which there is a minimum number of individuals in the ATUS, we would lose a high number of occupations. For example, if we restricted the sample to occupations in which we observed at least 30 individuals per observation period and who report at least one work activity, we would lose 91.6% of occupations, corresponding to 32.3% of observations. In 2021, we observe sufficiently many individuals with at least one work activity for only 22 (out of 423) occupations.

Occupational Information Network (O*NET) To obtain a reliable indicator of teleworkability, we utilize representative data on occupational characteristics from the Occupational Information Network (O*NET). O*NET is a program of the U.S. Department of Labor's Employment and Training Administration. The O*NET database includes a large set of occupational characteristics on nearly the entire universe of occupations in the U.S. economy. O*NET has been used in various economic studies to estimate the degree of teleworkability at the occupational level (Dingel and Neiman, 2020; Mongey et al., 2021). We use the information on occupational requirements included in O*NET's work activities (WA) and work context (WC) modules.

O*NET information is collected with standardized questionnaires given to random samples of workers within occupations (job incumbents), which are again drawn from a random sample of businesses expected to employ workers in the targeted occupations.[7] Each worker reports on

[7] In addition to the responses by job incumbents, for a smaller subset of occupations, information is provided by either occupational experts (22.18%) or analysts (2.39%) instead.

one (out of three) randomly chosen questionnaires.[8] In the work-activities questionnaire, job incumbents are asked to rate how important certain types of work activities are for the job they currently hold.

In the work-context questionnaire, respondents are asked questions about their working conditions, such as their work setting and its possible hazards, the pace of work, and their dealings with other people. In both questionnaires, all questions about the frequency or importance of certain conditions or activities are answered on a scale from 1 (never/not important) to 5 (every day/extremely important). A detailed list of the used items of both the work-activities and the work-context questionnaires is presented in Tables A.4 and A.5 in the Supplementary Material.

Not all surveys in the O*NET database are conducted at the same point in time, so the information for different occupations are gathered at different points in time. New versions of O*NET contain updated information for a subset of occupations. To temporally match O*NET data to the well-being information we have in the ATUS, we use O*NET versions that contain updates for specific occupations that are as close in time as possible to the ATUS waves 2010, 2012, 2013, and 2021, respectively. For example, occupational information for 2021 is obtained from either the most current O*NET database version 29.0 (November 2024) or from version 28.0 (August 2023), 27.0 (August 2022) or 26.0 (August 2021), depending on which version contains updated information on the respective occupation based on a survey conducted closest in time to 2021.[9] To make sure that no occupational information for ATUS observations from 2021 is used that is based on updates from the time before the onset of the Covid-19 pandemic, all occupational information for 2021 are taken from O*NET surveys conducted between 2020 and 2024.

A similar approach is taken for the years 2010, 2012 and 2013 by using O*NET versions 18.1 (March 2014), 19.0 (August 2014), 20.0 (August 2015), 21.0 (August 2016), 22.0 (August 2017), 23.0 (August 2018), 24.0 (August 2019) and 25.0 (August 2020).[10] The majority of surveys are conducted plus/minus two years around the respective ATUS wave. We do not use O*NET information that was updated more than five years before or after the respective ATUS wave.[11] For example, for the ATUS wave 2013 occupational information in O*NET was gathered between the years 2008 and 2018. The majority of these occupation surveys were conducted between 2011

[8] In the work-activities dataset of the most current version of O*NET (version 29), occupational information is based on, on average, 25.1 observations (min = 9 and max = 99).

[9] If two observation points are available which have an identical distance to the observed year (e.g. 2020 and 2022 for 2021), the more current observation is prioritized.

[10] Version 18.1 is the first O*NET version that contains the detailed set of work activities (WA) used for our analysis. Version 25.0 is the latest possible version due to an update of the occupational classifications to the SOC 2019 taxonomy from version 25.1 onwards.

[11] This also prevents us from using any information which was surveyed after the onset of the Covid-19 pandemic in combination with the pre-covid ATUS waves 2010-2013.

and 2015 (56.57%).

While occupations in the CPS/ATUS are reported based on Census Codes, O*NET classifies occupations based on the Standard Occupational Classification (SOC). Additionally, O*NET classifications and CPS/ATUS occupation classifications vary over time because the Census and SOC coding schemes were updated during our observation period. To merge the information provided by the O*NET program with the observations in the CPS/ATUS, we use crosswalks provided by the U.S. Census Bureau (see Appendix B of the Supplementary Material).

Teleworkability We construct a measure of the degree of teleworkability of a specific occupation following Dingel and Neiman (2020). Their definition of teleworkability is based on a number of queried activities, which are either less likely to be conducted from home (e.g. outdoor activities, wearing safety equipment, exposure to diseases, dealing with violent people) or which make working from home easier (e.g. frequently using email for communication). In line with their work, we use the same set of items from the O*NET work-activities and work-context modules.[12] These are:

- Work Context
  - How frequently does your job require electronic mail?
  - How often does your current job require you to work outdoors, exposed to all weather conditions?
  - How often does your current job require you to work outdoors, under cover (like in an open shed)?
  - How often is dealing with violent or physically aggressive people a part of your job?
  - In your current job, how often do you wear common protective or safety equipment such as safety shoes, glasses, gloves, hearing protection, hard hats, or life jackets?
  - In your current job, how often do you wear specialized protective or safety equipment, such as breathing apparatus, safety harness, full protection suits, or radiation protection?
  - How often does your job require that you be exposed to minor hurts?
  - How often does your job require that you be exposed to diseases or infection?
  - How much time in your job do you spend walking or running?
- Work Activities (importance of specific activities in the job)
  - Handling and Moving Objects

[12] We exclude the work activity "Performing General Physical Activities" to clearly differentiate the teleworkability factor from the physical demand of the occupation, which we will control for in later estimations.

- Controlling Machines and Processes
- Operating Vehicles, Mechanized Devices, or Equipment
- Performing for or Working Directly with the Public
- Inspecting Equipment, Structures, or Materials
- Repairing and Maintaining Mechanical Equipment
- Repairing and Maintaining Electronic Equipment

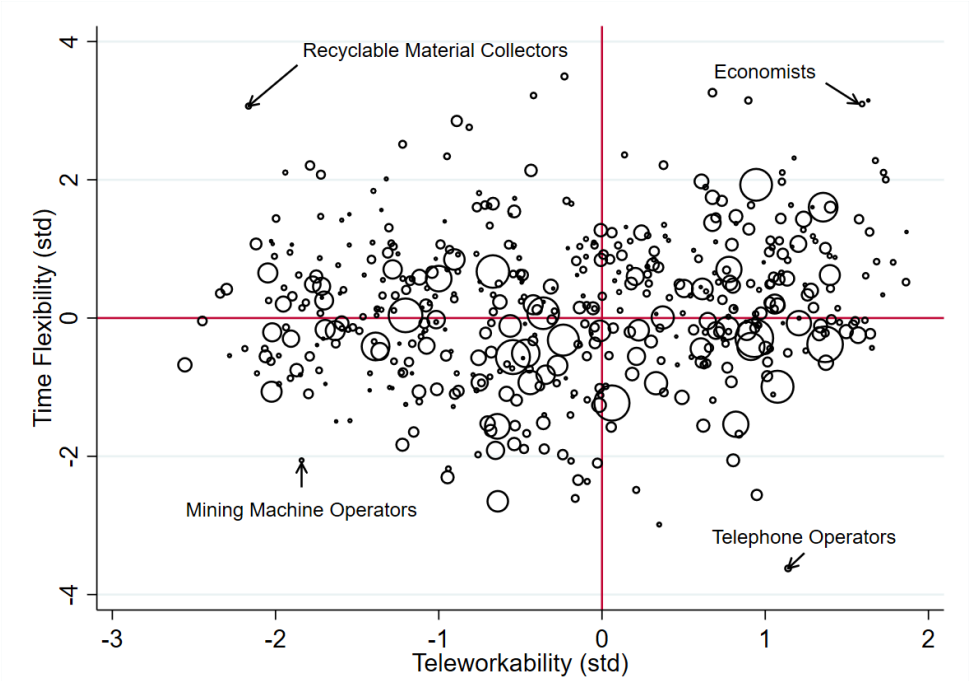
The teleworkability indicator is then calculated as the standardized arithmetic mean of all items in an occupation in a given year. We test the validity of this teleworkability indicator by analyzing its association with the realized shares of telework of ATUS respondents in an occupation (for occupations in which we observe at least 30 individuals in a work episode in a given year). The results indicate that, on average over all years, increasing the teleworkability of a job by one standard deviation increases the share of observed remote work activities of all work activities in the ATUS by 7.57 percentage points. The correlation coefficient between both variables is $\rho = 0.38$. This relationship is much stronger in 2021 compared to the three earlier waves ($\rho_{2021} = 0.61$). This is likely due to the fact that telework was much less common before the onset of the Covid pandemic, which affects the predictive power of teleworkability for realized telework in an occupation.

Time Flexibility In addition to locational flexibility, another dimension of FWA concerns the timing of work. Many employment relationships have defined schedules that follow from technical constraints or the need to coordinate work in teams. A reduction of schedule constraints could make it easier for employees to coordinate their professional and private obligations, which would reduce time conflicts and improve their work-life balance. We use O*NET information to generate a measure of working-time flexibility. Time Flexibility is constructed by combining four different items. These items ask employees the following questions about their current job:

- How much contact with others (e.g. telephone, face-to-face) is required? (scale reversed)
- How important are interactions that require you to work with or contribute to a work group or team to perform your current job? (scale reversed)
- How much freedom do you have to make decisions without supervision?
- How much freedom do you have to determine tasks, priorities, or goals of your job?

Analogous to the teleworkability index, we calculate the time-flexibility indicator by averaging the answers to these five questions and then standardizing the index. It should be noted that this measure has limitations. Unlike the teleworkability measure, this composite index only

Figure 2: Scatterplot of Teleworkability and Time Flexibility



Source: Author's own calculations and illustrations based on ATUS 2010, 2012, 2013 and 2021; O*NET version 18.1 - 29.0. *Notes:* Each dot refers to an occupation represented by at least one individual in the ATUS. The size of the dots represent the frequency with which the occupation is observed among ATUS participants.

captures aspects that reflect a higher degree of flexibility in work scheduling from the employees' perspective and is thus one-sided. It does not account for the fact that flexible working hours can also be used by employers to streamline operational processes, which may not necessarily benefit the employees. In the subsequent analysis, we will therefore primarily focus on the analysis of teleworkability. Time flexibility will be considered only as a moderating factor.

Figure 2 shows a scatter plot of the teleworkability variable and the time flexibility variable. The figure also includes examples for occupations with different teleworkability levels.

4.3 Occupational Controls

In addition to teleworkability and time flexibility, we also obtain a number of other occupational characteristics from the O*NET data as control variables for our multivariate model. This is necessary because jobs that differ with respect to their FWA might also systematically differ in other aspects that could be relevant to workers' well-being.

We will take into account that occupations differ with respect to the emotional, cognitive, and physical demands they place on workers. Following Lordan and Pischke (2022) and Glomb et al. (2004), we construct measures of these three task dimensions using exploratory factor analysis. O*NET items are considered for one of the three latent factors if they are not already considered in the teleworkability or time-flexibility variables and if they have a clear loading onto this factor (and not on the other two). Table A.5 in the Supplementary Material shows

which items from the work-context and work-activities modules enter the measures of emotional, cognitive, and physical job demands.

Additionally, we consider the level of education and experience required for a specific occupation. This is obtained from the average required education[13] as well as average required related work experience[14] reported by the respondents in O*NET's Education, Training, and Experience module.

In addition to the information obtained from O*NET, we also add information on occupational prestige from the 2012 General Social Survey (Hout et al., 2015). Average wage levels and the total number of employees in an occupation are obtained from the Occupational Employment and Wage Statistics for the years 2010, 2012, 2013, and 2021 of the Bureau of Labor Statistics (2024b).

4.4 Empirical Strategy and Control Variables

We are interested in the relationship between FWA (teleworkability and time flexibility) and subjective well-being, conditional on other relevant individual and occupational characteristics. To determine this relationship, we regress emotional well-being WB_{ij} of individual i in episode j on the continuous measure of teleworkability TW_i as well as a list of episode-level (A_{ij}), individual-level (X_i), and occupation-level (O_i) control variables. The estimation equation has the following form:

$$WB_{ij} = \alpha_{ij} + \beta_{TW} TW_i + \beta_A A_{ij} + \beta_X X_i + \beta_O O_i + \epsilon_{ij} \tag{1}$$

The episode-level control variables A_{ij} are the duration of the episode, time of the day, an indicator for weekday/weekend, and the number of people present during the activity.[15] Individual-level control variables X_i are age, education level, immigration status, region of living (urban or rural), marital status, number of children, presence of a small child in the household, weekly earnings, number of weekly working hours, as well as year and month of the survey. Occupation-level controls O_i are occupational prestige as well as average hourly wage and average weekly working hours in the occupation[16], total number of employees, average required

[13] Respondents indicate the required level of education on a scale from 1 (less than a high school diploma) to 12 (post-doctoral training) and shares of the responses on each category are reported in the O*NET data. We calculate the average category based on these shares.

[14] Respondents indicate the required level of work experience on a scale from 1 (none) to 10 (over 10 years) and shares of the responses on each category are reported. We calculate the average category based on these shares.

[15] The number of people present during an activity as well as the time and day at which the activity is conducted might depend on whether an employee is working remotely or not. These variables might thus be consequences of teleworkability and constitute "bad controls". We checked the sensitivity of our results with respect to the inclusion of these control variables in Section 5.4.

[16] Average weekly working hours are calculated based on available information on average hourly and annual wages.

education, average tenure, as well as the level of cognitive, physical, and emotional job demands. Observations are weighted with the respondent weights for the WB Module in all estimation models.

O*NET data for specific occupations is updated in irregular intervals. Hence, all individuals who are employed in the same occupation in years between two O*NET updates are assigned the same values for teleworkability, time flexibility, and other occupational covariates. Hence, standard errors are clustered on the occupation times update level (Moulton, 1990).

In a second step, we add a measure of time flexibility in the occupation (TF_i) and an interaction between TW and TF to the model:

$$WB_{ij} = \alpha_{ij} + \beta_{TW}TW_i + \beta_{TF}TF_i + \beta_{TWTF}TW_i * TF_i + \beta_A A_{ij} + \beta_X X_i + \beta_O O_i + \epsilon_{ij} \quad (2)$$

In a third step, we examine the association between teleworkability and the duration-weighted average affective well-being over the survey day (WB_i). This reduces the sample to only one observation per individual (i). Analogously to (2), individual day-average well-being is regressed on the teleworkability and time-flexibility indicators as well as on the set of control variables:

$$WB_i = \alpha_i + \beta_{TW}TW_i + \beta_{TF}TF_i + \beta_{TWTF}TW_i * TF_i + \beta_X X_i + \beta_O O_i + \epsilon_i \quad (3)$$

Limitations to causal interpretation One should be cautious about interpreting the estimated partial correlations causally. It is conceivable that the estimated relationships are affected by (1) unobserved confounders, e.g. corporate culture, and (2) reverse causality, e.g., the self-selection of individuals with a very high or low level of emotional well-being at work into more or less teleworkable jobs. We hope that (1) is largely addressed by the substantial set of control variables we add to our estimation model. Reverse causality (2) is always a potential problem in cross-sectional well-being studies. For this reason, we focus on the teleworkability of jobs rather than on episodes of actual remote work. While the choice of one's work location might be highly endogenous and influenced by one's temporal emotional state, this is, arguably, less the case with respect to general job attributes such as teleworkability. Nevertheless, endogeneity remains a potential problem.

Alternative models for the identification of a causal effect of FWA on affective well-being would either involve some experimental variation in teleworkability (such as e.g. in Choudhury et al. (2024) or Bloom et al. (2015) for telework) or examine the within-person changes in well-being following a variation in the teleworkability of occupations over time. Both are, nevertheless, not feasible in our setting given that teleworkability, i.e., the capability of jobs to allow remote work, as opposed to telework, i.e., the number of individuals actually working from home, varies

much less over time. A non-teleworkable job, such as being an animal caretaker, will not become more teleworkable just because telework becomes more common. As discussed above, what we observe over time is not an increase in the teleworkability of jobs but an increase in the correlation between teleworkability and telework probability as telework becomes a more and more common practice (within the group of teleworkable jobs). Hence, there is not enough within-occupation variation in teleworkability to allow estimating regressions with fixed effects. We will return to these issues in the robustness checks in Section 5.4.

5 Results

5.1 Labor Activities

In Table 2, we present the results of the regressions of affective well-being on FWA (equations (1) and (2)). We estimate the regressions separately for women (columns (1) to (4)) and men (columns (5) to (8)). First, we restrict our attention to the well-being experienced during labor activities. The upper panel summarizes the findings on net affect, while the middle and lower panels show the results for positive and negative affect, respectively. The time-flexibility measure and different sets of control variables are gradually included in the model.

Table 2: Main Estimation Results - Labor Activities (Full Sample)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Women				**Men**			
Outcome - Net Affect								
TW	-0.110	-0.168**	-0.586***	-0.568***	-0.119**	-0.099*	-0.162	-0.149
	(0.067)	(0.081)	(0.184)	(0.185)	(0.060)	(0.057)	(0.173)	(0.173)
TF				0.009				-0.025
				(0.057)				(0.047)
TW x TF				-0.085				-0.053
				(0.054)				(0.053)
Outcome - Positive Affect								
TW	-0.105**	-0.121**	-0.400***	-0.391***	-0.065	-0.058	-0.143	-0.142
	(0.048)	(0.056)	(0.137)	(0.138)	(0.045)	(0.042)	(0.135)	(0.136)
TF				0.090**				-0.001
				(0.041)				(0.035)
TW x TF				-0.061*				-0.002
				(0.034)				(0.047)
Outcome - Negative Affect								
TW	0.005	0.047	0.185**	0.177**	0.054**	0.041	0.020	0.006
	(0.028)	(0.033)	(0.074)	(0.075)	(0.026)	(0.027)	(0.071)	(0.070)
TF				0.081***				0.023
				(0.028)				(0.023)
TW x TF				0.024				0.051**
				(0.030)				(0.025)
Set of Controls								
Activities		✓	✓	✓		✓	✓	✓
Individuals		✓	✓	✓		✓	✓	✓
Occupations			✓	✓			✓	✓
Observations	2089	2089	2089	2089	2674	2674	2674	2674
Cluster	185	185	185	185	232	232	232	232

Source: ATUS 2010, 2012, 2013 and 2021; O*NET version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010, own calculations.
Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Full estimation results for columns (4) and (8) can be found in Table C.4 in the Supplementary Material.

Columns (1) and (5) contain the unconditional associations between teleworkability and net affect. For women, this association is statistically insignificant. For men, it is significantly negative. To quantify it, if the teleworkability of a job was one standard deviation higher than in another job (e.g., an industrial engineer compared to a machine operator, or a manager compared to an industrial engineer), the average net affect during labor activities of male employees in this occupation is estimated to be lower by 0.119 units, about 6% of a standard deviation in net affect ($SD = 1.889$). We find a significant negative association between TW and positive affect for women, but not for men (middle panel). As can be seen in the lower panel, there is no significant association between TW and negative affect for women, while men seem to experience more negative emotions when they are employed in more teleworkable jobs. When we control for activity and individual characteristics, the association between TW and net affect is (still) significantly negative, and the magnitudes of the associations change only slightly (see columns (2) and (6)). Columns (1) to (4) of Table C.1 in the Supplementary Material present the results of regressing each emotion separately. The results show that the lower level of net affect is reflected by lower levels happiness for women. Additionally, teleworkable jobs are associated with higher stress levels, but also lower levels of tiredness and pain. These unconditional correlations, especially the differences in tiredness and pain, are likely caused by certain job demands, in particular physical strain, which are positively correlated with both teleworkability of jobs and the levels of these emotions. In order to control for such confounders, we additionally control for a set of occupational characteristics. Columns (3) and (7) of Table 2 show the estimation results for these extended models. When comparing them to the model in which only activity and individual characteristics are controlled for, we can see that coefficients change considerably, which indicates that our fully controlled model captures relevant occupational heterogeneity between teleworkable and non-teleworkable jobs. For women, we find more negative well-being effects of TW. A one standard deviation increase in teleworkability is associated with a decrease in net affect during labor activities of 30% of a standard deviation (0.568 units). This indicates that teleworkable jobs have other occupational characteristics that are themselves beneficial to well-being and confound the estimated association.[17] The observed changes are driven by a more negative relationship of teleworkability with happiness and meaningfulness as well as a more positive association with stress and tiredness. No associations with pain and sadness are observed in the fully controlled setting. For men, the estimated association between TW and net affect increases in absolute magnitude but becomes statistically insignificant when adding

[17] Decomposition analyses show that the change in the estimated TW coefficient is explained mainly by differences in physical job demands. Teleworkable jobs have, on average, lower physical demands than non-teleworkable jobs. Physically demanding jobs are associated with lower affective well-being at work. Hence, adding physical demands as a control variable accounts for a significant portion of the change in the teleworkability coefficient.

occupational controls. When looking at single emotions, their associations with TW become statistically insignificant (except for a significantly negative association with happiness).

In the next step, we also add time flexibility (TF) and an interaction term between TW and TF to the model. This allows us to examine whether time flexibility moderates the relationship between teleworkability and affective well-being in line with the theoretical discussions in 3. Columns (4) and (8) of Table 2 contain the estimation results for these models.[18] We do not find significant evidence that time flexibility is directly associated with net affect or moderates the relationship between TW and well-being. For women, we find significant evidence that more time flexibility is associated with more positive and more negative feelings. The positive association with positive affect is smaller in more teleworkable jobs. For men, we can observe a significant interaction term for negative emotions, indicating that men in jobs which are both teleworkable and time-flexible experience significantly more negative emotions.

Overall, these findings provide tentative evidence that an occupation's teleworkability and time flexibility might not be beneficial for the affective well-being of workers.

5.2 Spillovers to non-labor activities

In Section 3, we argued that a higher degree of flexibility in the determination of the time and place of work might not (only) be used to make working more enjoyable but could also allow reducing time conflicts with non-work activities, which could then increase the affective well-being experienced outside of work. In the following, we examine spillover effects of teleworkability and time flexibility into other activities. Tables 3 (Women) and Tables 4 (Men) contain the results of estimating affective well-being in unpaid work, leisure, and other activities, applying the regression models (1) and (2).[19]

In line with the findings for labor activities, we can see a negative association of teleworkability with affective well-being during unpaid work (driven by weaker positive emotions) in the uncontrolled setting (column (1) of Tables 3 and 4). For both women and men, this association disappears when we control for other occupational characteristics. We neither find a significant association between time flexibility and the net affect during unpaid work activities, nor a significant interaction effect. A statistically significant association is found between time flexibility and positive affect for women during unpaid work.

We do not find significant evidence for spillovers of teleworkability into the net affect experienced during leisure activities by men and women (columns (3) and (4) of Tables 3 and 4). When

[18] Column (1) of Tables C.2 (Women) and C.3 (Men) in the Supplementary Material contains the full estimation results (including the coefficients for all control variables) for these estimations.

[19] Tables C.2 and C.3 in the Supplementary Material contain the full estimation results (including the coefficients for all control variables) for these estimations for women and men. Tables C.4 and C.5 contain the estimation results for all six emotions separately.

Table 3: Main Estimation Results - Non-labor Activities (Women)

	(1)	(2)	(3)	(4)	(5)	(6)
	Unpaid Work		**Leisure**		**Other**	
Outcome - Net Affect						
TW	-0.110***	-0.066	-0.057	0.143	-0.021	0.049
	(0.036)	(0.096)	(0.042)	(0.104)	(0.034)	(0.078)
TF		0.067		-0.066*		0.009
		(0.049)		(0.039)		(0.040)
TW x TF		0.031		-0.079**		-0.027
		(0.040)		(0.037)		(0.040)
Outcome - Positive Affect						
TW	-0.130***	-0.094	-0.085**	-0.038	-0.068***	-0.034
	(0.030)	(0.073)	(0.034)	(0.097)	(0.026)	(0.055)
TF		0.060*		-0.046		0.019
		(0.034)		(0.033)		(0.028)
TW x TF		0.019		-0.067**		-0.030
		(0.031)		(0.027)		(0.026)
Outcome - Negative Affect						
TW	-0.020	-0.027	-0.028	-0.181***	-0.047**	-0.083*
	(0.018)	(0.042)	(0.019)	(0.061)	(0.018)	(0.045)
TF		-0.008		0.020		0.010
		(0.024)		(0.019)		(0.018)
TW x TF		-0.011		0.012		-0.004
		(0.016)		(0.022)		(0.018)
Set of Controls						
Activities		✓		✓		✓
Individuals		✓		✓		✓
Occupations		✓		✓		✓
Observations	6585	6585	4288	4288	9910	9910
Cluster	227	227	221	221	237	237

Source: ATUS 2010, 2012, 2013 and 2021; O*NET version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010, own calculations.
Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Full estimation results for columns (2), (4) and (6) can be found in Table C.2 in the Supplementary Material.

looking at positive and negative emotions separately, we find a significant negative association between TW and positive emotions for men and women in the regressions without controlling for occupational characteristics and time flexibility. With these controls, the association with positive affect disappears, but we find a significant negative association between TW and negative emotions for women. We also see a significant negative association of time flexibility with net affect as well as a significantly negative interaction affect for women. This indicates that women in time-flexible jobs experience on average lower levels of emotional well-being during leisure activities. This effect is even stronger in teleworkable than in non-teleworkable jobs. No significant associations between time flexibility and affective well-being during leisure activities are found for men.

In column (6) of Table 3, we do see significant associations between teleworkability and negative emotions during other activities (i.e., activities that are neither unpaid work nor core leisure activities) which is positive for men and negative for women. We examine two of these activities more closely (eating & drinking, traveling).[20] We find that the associations with negative emotions for both women and men are driven by travel activities. The findings are likely

[20] The results of these estimations can be found in Table C.6 in the Supplementary Material.

Table 4: Main Estimation Results - Non-labor Activities (Men)

	(1)	(2)	(3)	(4)	(5)	(6)
	Unpaid Work		**Leisure**		**Other**	
Outcome - Net Affect						
TW	-0.119***	0.214	-0.060	-0.012	-0.098**	-0.118
	(0.043)	(0.148)	(0.042)	(0.187)	(0.041)	(0.080)
TF		0.054		0.055		0.000
		(0.033)		(0.054)		(0.034)
TW x TF		-0.018		-0.001		-0.023
		(0.034)		(0.033)		(0.032)
Outcome - Positive Affect						
TW	-0.113***	0.158	-0.066**	-0.136	-0.102***	-0.023
	(0.030)	(0.106)	(0.033)	(0.122)	(0.032)	(0.068)
TF		0.035		0.021		-0.026
		(0.027)		(0.038)		(0.022)
TW x TF		-0.029		0.005		-0.024
		(0.029)		(0.027)		(0.025)
Outcome - Negative Affect						
TW	0.006	-0.057	-0.005	-0.124	-0.004	0.095**
	(0.020)	(0.077)	(0.015)	(0.088)	(0.017)	(0.042)
TF		-0.019		-0.033		-0.027
		(0.015)		(0.023)		(0.018)
TW x TF		-0.012		0.005		-0.001
		(0.018)		(0.020)		(0.016)
Set of Controls						
Activities		✓		✓		✓
Individuals		✓		✓		✓
Occupations		✓		✓		✓
Observations	4664	4664	4911	4911	10537	10537
Cluster	258	258	270	270	285	285

Source: ATUS 2010, 2012, 2013 and 2021; O*NET version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010, own calculations.
Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Full estimation results for columns (2), (4) and (6) can be found in Table C.3 in the Supplementary Material.

driven by differences in the composition of this activity, which in teleworkable jobs contains less commuting and more traveling for leisure reasons. Thus, while women with teleworkable jobs experience less negative emotions due to less commuting, men experience more negative emotions during travel activities.

5.3 Time Use and Day-Average Affective Well-Being

Based on the findings discussed in the previous section, we can now analyze how the observed differences in net affect during certain activities translate into differences in overall emotional well-being. We do so by analyzing the association of workplace flexibility with the day-average affective well-being.

Table 5 contains estimates of the association between teleworkability, time flexibility, and the duration-weighted average affective well-being that individuals experience over the survey day.[21] We estimate this association, applying regression equation (3) and using individual-level data for the 7,801 women and 7,785 men in our sample. The results are shown in Table 5.

[21] To be precise, since the ATUS well-being module has information on only three episodes of the survey day, we can only calculate an estimate of the respondent's well-being over the full day based on these three randomly chosen episodes.

Table 5: Main Estimation Results - Day-Average Affective Well-Being (Full Sample)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Women				**Men**			
TW	-0.081**	-0.064*	-0.103	-0.100	-0.096***	-0.029	-0.078	-0.069
	(0.033)	(0.034)	(0.075)	(0.079)	(0.035)	(0.041)	(0.087)	(0.089)
TF				0.023				0.022
				(0.031)				(0.033)
TW x TF				-0.053*				-0.016
				(0.030)				(0.024)
Observations	7801	7801	7801	7801	7785	7785	7785	7785
Cluster	252.000	252.000	252.000	252.000	295.000	295.000	295.000	295.000
Joint significance (p-value):								
TW+TF+TWxTF				0.1312				0.6052
TW+TWxTF				0.0636				0.5622
Set of Controls								
Individuals		✓	✓	✓		✓	✓	✓
Occupations			✓	✓			✓	✓

Source: ATUS 2010, 2012, 2013 and 2021; O*NET version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010, own calculations.
Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

While the raw differences in well-being between men and women with and without teleworkable jobs also translate into lower levels of day-average well-being, we cannot see significant associations between teleworkability and day-average well-being in the fully controlled model for men or women. When considering the moderating effect of time flexibility, we do see a significant negative interaction effect for women. The joint effect of TW and its interaction with TF is significantly negative for women. This indicates that more teleworkability is associated with less affective well-being when employees already have high levels of time flexibility. Testing the joint significance of all three coefficients, i.e., comparing employees with average levels of both TW and TF to those for whom TF and TW are one standard deviation above the mean, we find no significantly negative associations for men or women.

Since we found evidence for negative effects of teleworkability on well-being during labor activities and no clear evidence for spillovers into non-work activities, we would expect to see (weakly) negative associations between TW and day-average well-being. Nevertheless, findings reveal that the associations found for labor activities do not directly translate into differences in day-average well-being at all levels of time flexibility. Thus, it is conceivable that differences in day-average affective well-being are influenced not only by the differences in the level of emotional well-being experienced during specific activities but also by differences in the composition of the various activities, i.e. differences in time use in general (as day-average emotional well-being is duration-weighted). Individuals in teleworkable jobs might, on average, spend more or less time in enjoyable activities. To disentangle the role of differences in experienced emotions and differences in the composition of activities, we take a closer look at the time spent in different activities when women or men hold (non)teleworkable jobs. Table 6 shows the means of the weighted cumulative duration of episodes corresponding to the specific activity types, separately for men

Table 6: Cumulative Duration of Activities by Teleworkability & Estimation Results of Uncontrolled and Fully Controlled Model

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Women				**Men**			
	TW<P50 mean	TW> P50 mean	raw beta (se)	controlled beta (se)	TW<P50 mean	TW> P50 mean	raw beta (se)	controlled beta (se)
Labor	4.72	4.88	0.168	0.080	5.72	5.54	-0.176	-0.407**
			(0.219)	(0.181)			(0.150)	(0.194)
Unpaid Work								
Childcare	0.57	0.54	-0.024	-0.001	0.4	0.41	0.003	-0.017
			(0.060)	(0.041)			(0.028)	(0.034)
Elder care	0.02	0.03	0.006	0.006	0.02	0.02	0.002	-0.015**
			(0.008)	(0.006)			(0.005)	(0.007)
Housework	1.89	1.63	-0.253**	-0.152	1.2	1.19	-0.008	0.124*
			(0.098)	(0.095)			(0.045)	(0.066)
Grocery shop.	0.15	0.15	0.001	-0.005	0.09	0.12	0.021***	0.014
			(0.012)	(0.014)			(0.007)	(0.011)
Using services	0.1	0.1	0.003	0.036	0.05	0.07	0.016**	-0.015
			(0.016)	(0.025)			(0.008)	(0.015)
Leisure								
Socializing	0.78	0.75	-0.026	-0.017	0.64	0.63	-0.008	0.015
			(0.050)	(0.073)			(0.030)	(0.054)
Relaxing	2.78	2.78	-0.001	0.052	3.45	3.33	-0.124	0.281*
			(0.071)	(0.103)			(0.103)	(0.157)
Sports	0.19	0.25	0.054**	-0.015	0.33	0.41	0.075***	0.017
			(0.022)	(0.028)			(0.023)	(0.041)
Relig. act.	0.11	0.11	0.001	0.002	0.11	0.1	-0.010	0.050*
			(0.016)	(0.016)			(0.014)	(0.029)
Other								
Sleep & P.care	9.51	9.49	-0.015	0.142*	9.06	8.89	-0.163**	-0.164
			(0.065)	(0.083)			(0.068)	(0.113)
Education	0.3	0.28	-0.018	0.082*	0.16	0.31	0.156***	0.048
			(0.055)	(0.049)			(0.049)	(0.098)
Consum Purch.	0.29	0.28	-0.006	-0.057	0.17	0.16	-0.008	-0.035
			(0.023)	(0.052)			(0.012)	(0.029)
Eating/drinking	1.02	1.08	0.060**	0.058	1.07	1.19	0.124***	0.020
			(0.029)	(0.038)			(0.019)	(0.028)
Volunteering	0.07	0.13	0.056***	0.014	0.07	0.1	0.034***	0.017
			(0.013)	(0.014)			(0.012)	(0.021)
Traveling	1.29	1.31	0.026	-0.130*	1.28	1.36	0.076**	0.062
			(0.037)	(0.067)			(0.038)	(0.056)

Source: ATUS 2010, 2012, 2013 and 2021; O*NET version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010, own calculations.
Notes: Observations are weighted with survey weights for the WB Module. P-values correspond to t-test for mean equality. The estimation sample includes individuals which have missing activities because of missing information on e.g. the activity type. Thus, this table includes cumulative information on these missing episodes although the episodes are not included in the sample.

and women and for individuals in occupations with low vs. high teleworkability (divided at the median) in columns (1) and (2) as well as (5) and (6). Cumulative durations refer to the sum of the duration of all episodes an individual reported in a specific activity type.[22] Additionally, the results of the OLS estimation of the cumulative duration on the teleworkability indicator without any control variables (columns (3) and (7) and with the full set of control variables (columns (4) and (8)) are presented.

The regression results suggest that most differences in time use between individuals with and without teleworkable jobs can be explained by other individual or job characteristics, such as e.g. the lower level of sleep for men, higher levels of sports and eating/drinking for both men and women as well as lower levels of housework for women. The only remaining significant

[22] The duration of activities which an individual does not report in the diary are set to zero.

differences in the fully controlled setting are that women in teleworkable jobs spend less time traveling and more time sleeping. Among men, teleworkability is associated with less time spent with paid work and more time spent relaxing and doing housework. Overall, this suggests that job teleworkability allows shifting time away from less enjoyable activities, which explains why the negative association with emotional well-being during labor activities does not directly translate into lower levels of day-average well-being for jobs with average time flexibility.

5.4 Sensitivity Checks

Subsample Analysis: Parents Flexible working arrangements are particularly important for parents because they face time conflicts and have to balance the needs of their families and the demands of their jobs every day. In this subsection, we will thus examine the association between FWA and the well-being of parents.

The literature on the relationship between parenthood and well-being provides strong evidence that having children is generally associated with higher affective well-being (Nelson et al., 2013; Musick et al., 2016; Flood et al., 2020; Negraia and Augustine, 2020). It is less clear how the relationship between parenthood and affective well-being depends on parents' employment status (Bertrand, 2013; Meier et al., 2016; Roeters and Gracia, 2016; Keldenich, 2022). A consistent finding of the existing literature is that – contrary to the view that FWA reduce conflicts between work and family obligations – remote work seems to have less positive effects on the mental health of parents than of childless persons (Bertoni et al., 2021; Gueguen and Senik, 2023; Senik et al., 2024).

Building on this literature, we conduct additional analyses focusing especially on the question of whether there are stronger spillovers into unpaid work activities for employees with children. Tables D.1 (Mothers) and D.2 (Fathers) display the results of the estimation for the subsample of individuals who report that they have a child under the age of 18 living in their household.

Restricting the analyses to parents substantially reduces the sample size (and thus statistical precision). For labor activities, we find that mothers in teleworkable jobs experience less positive, but also less negative emotions. There is no significant evidence for a clear association between TW and the net affect. For fathers, we find negative associations between TW and positive emotions, but no clear associations with negative emotions. This results in significantly negative associations with the net affect (in regressions without further controls). Concerning time flexibility, our results suggest that there is a significantly negative association between TF and the net affect as well as a significant negative interaction effect for mothers. This indicates that, especially for mothers, the combination of both teleworkable and time-flexible jobs is associated with a lower level of emotional well-being during labor activities. We also observe a similarly

negative effects of TF and its interaction with TW for fathers.

The associations within unpaid work activities are generally less clear. Mothers seem to experience less positive feelings in teleworkable jobs, but there is also evidence that they experience less negative emotions. There is no evidence of an association between time flexibility and the affective well-being of mothers during unpaid work. For fathers, teleworkability is associated with less positive and more negative emotions during unpaid work activities. Time flexibility seems to be beneficial, especially in jobs that are not teleworkable.

There are no clear spillovers of TW into the affective well-being during leisure activities. Mothers in teleworkable jobs seem to experience both less positive and less negative emotions. Time flexibility is especially harmful for well-being during leisure if jobs are teleworkable. The latter interaction is also found for fathers.

Pre-Post Covid-19 Heterogeneity Analysis So far, we have assumed that the association between telework and emotional well-being is the same in all survey years. We now want to assess whether this assumption is justified, in particular since the observed time period includes the onset of the Covid pandemic. We conduct a subsample analysis in which we estimate the relationship separately for 2010 - 2013 (pre-Covid) and 2021 (post-Covid). Results are shown in Table D.3 in the Supplementary Material.

We can see that the negative relationship between TW and affective well-being for women during labor activities can be observed pre- as well as post-Covid. The post-Covid estimates are smaller and less precisely estimated due to the smaller sample size. For men, we see a large and statistically significant negative association in the post-Covid period.

The role of time flexibility as a moderator seems to differ between the two periods. While the interaction effect is significantly negative for women in 2010-2013, suggesting that women in very time-flexible jobs experience a stronger negative association between TW and net affect, the interaction effect is small and statistically insignificant in 2021. We do not find significant evidence for associations between TF and affective well-being for men in either period.

In contrast to the pre-Covid years, we find significant evidence for a positive role of TW for the net affect of women during unpaid work and leisure activities in 2021. This suggests that the teleworkability of a job has gained importance for the compatibility of family and work, likely caused by the overall increase in the importance of telework and hybrid work in teleworkable jobs during and after the pandemic.

Occupation Fixed Effects We have already discussed the limitations of our estimation strategy concerning causal interpretations in Section 4.4. As we explained there, using a fixed effects

model is problematic because it adds new limitations to our empirical strategy. Our measure of teleworkability lacks variation within occupations over time, especially for a short time interval such as the years 2010 to 2013. Moreover, there might be not only time-invariant unobserved factors but also time-varying ones, in particular since the Covid pandemic occurred during our observation period. As a sensitivity check, we nevertheless estimate a model that includes occupation fixed effects and report the results Table D.4 in the Supplementary Material. Columns (1) and (4) contain the results for all years, while columns (2) and (5) display the results for the years 2010-2013 (to exclude Covid as a potential confounder).

The results support the findings from the main model. Also in the model with occupation fixed effects, the point estimate of the association between TW and net affect during labor activities is negative for women in the pre-Covid period. The estimate for the full time period (including 2021) is statistically insignificant. The difference between the two time periods might suggest that the reasons for within-occupation changes in TW (and thus their association with well-being) were substantially different during the pandemic than before.

We also observe a significant negative association of TW with net affect during unpaid work for women as well as a strong positive association with net affect during leisure activities for men in the pre-Covid years. However, one should keep in mind that changes in the teleworkability of jobs (based on the characteristics from the O*NET in the period between 2010 and 2013) are rare, such that fixed-effect estimates might be driven by a handful of specific occupations.[23]

Endogenous Variables and Bad Controls As has already been indicated in Section 4.4, some of the activity characteristics we add to our model as control variables might potentially be endogenous to the model and would thus be "bad controls" (Angrist and Pischke, 2009). Potentially endogenous controls include the number of people present during the activity, weekday/weekend, and the time at which the activity takes place. Telework is known to, on average, reduce social contacts during working time, which could counteract the association between teleworkability and net affect during labor activities if social contacts are beneficial for affective well-being (which they might not be, cf. (Hoang and Knabe, 2022)). At the same time, teleworkability and especially time flexibility, by definition, allow for working outside of regular working hours, e.g. on weekends, early in the morning, or late in the evening. If working during these days or hours is associated with higher or lower levels of emotional well-being, this could be an important channel (rather than a confounder) for the association we want to identify. In order to check the possibility of bias in our teleworkability coefficient in this respect, we run sensitivity

[23] An example for an occupation with relatively many observations in the ATUS sample ($N = 192$) for which we observe a large increase in teleworkability between 2010 and 2013 is Medical and Health Services Managers.

checks in which we exclude these variables from the model. The results are presented in Table D.4 in the Supplementary Material. Estimates change only marginally, which suggests that our results do not suffer from a potential "bad control"-problem.

6 Conclusion

Flexible working arrangements (FWA), especially the freedom to choose one's work location and working hours, hold the potential to benefit employees by improving their work-life balance, job satisfaction, and productivity. Remote work reduces commuting, thereby offering more time for personal and professional activities, and allows working in a familiar environment. Working-time flexibility can reduce time conflicts between professional and private obligations. However, challenges exist, such as social isolation from reduced face-to-face interactions and blurred boundaries between work and personal life. The magnitude of these benefits and costs is an empirical issue that we address in this paper.

Our analysis is based on well-being data from the American Time-Use Survey and information on FWA from the Occupational Information Network O*NET. We build on the existing literature on the relationship between FWA and well-being and extend it in several ways. We focus on affective instead of cognitive well-being, i.e., we examine actual experiences of specific emotions instead of evaluations of abstract concepts such as life satisfaction. To reduce potential selection effects, we examine well-being differences between persons with jobs that generally allow for more or less flexibility (instead of comparing persons when they are, e.g., actually working from home or in the office). Overall, our findings do not provide evidence that FWA are beneficial to workers' emotional well-being. More detailed analyses highlight a nuanced relationship between flexible working arrangements and affective well-being, revealing significant gender differences. While teleworkability is associated with worse emotional well-being during work activities for women, there is no such negative association for men. Another contribution is that we separately analyze well-being during paid work activities and outside of paid work and also examine measures of day-average well-being. Our findings suggest that the benefits and drawbacks of FWA do not necessarily extend to non-work activities. We do not find strong evidence for spillover effects into unpaid work or leisure time. When we look at average well-being experienced over the entire day, we see that the negative relationship between FWA and women's emotional well-being during labor activities translates into an overall lower experienced well-being during the survey day if jobs are time flexible, too. For men, the association between teleworkability of jobs and their day-average affective well-being is partly driven by differences in the composition of activities during the day. We also place a special focus on parents because

they face particular challenges of balancing professional and family obligations. We find some differences in the estimated associations between employees with and without children, suggesting that time flexibility is particularly detrimental to mothers' affective well-being during work and leisure activities in teleworkable jobs.

Overall, our analysis provides rather ambiguous findings regarding the relationship between FWA and well-being. This underscores the complexity of FWA's impact on emotional well-being and correspond to the ambiguous findings of the literature on telework and the globally evaluative well-being of parents (Oakman et al., 2020; Vega et al., 2015; Bertoni et al., 2021; Cheng et al., 2021; Gueguen and Senik, 2023; Senik et al., 2024; Choudhury et al., 2024). On the one hand, these findings could indicate hidden costs of flexibility that workers might not have been aware of when choosing their job or working-time arrangement. On the other hand, the missing positive association between FWA and the affective well-being of workers might also suggest that workers are not pure hedonists who are (only) interested in maximizing their momentary emotional well-being, but that they also aim at achieving other life goals. They might also base their decisions not only on their own well-being, but also on the well-being of others, e.g. their children.

At first glance, our results seem to conflict with the findings of Giménez-Nadal et al. (2020) as well as Lu and Zhuang (2023) who find positive associations of telework and affective well-being for men but no significant relationships for women, or Giménez-Nadal and Velilla (2024) who find negative associations of telework and affective well-being for men and no association for women. The differences between these studies and ours suggest that it is important to distinguish between the general availability of telework and the experience of actually working remotely. They also point to the importance of gender roles and expectations in the workplace and at home. Women in teleworkable jobs might face increased pressures to balance professional and domestic responsibilities caused by the possibility of taking work home. The intensified blurring of the boundary between working hours and family time might be responsible for the observed lower sense of well-being during labor activities, regardless of location. This added strain could result from societal expectations that women balance household responsibilities with their careers, potentially heightening their stress levels and diminishing the benefits of teleworking. In contrast, men might experience fewer such pressures, allowing them to benefit more from the advantages of telework. These advantages, however, might only be observable in emotional well-being during actual remote-work episodes which are too rare in our sample to estimate them with sufficient statistical precision. Additionally, the lack of consistent and statistically significant effects for men in our study could indicate that the advantages of telework

are heterogeneous and context-dependent (see Oakman et al., 2020), varying across different work environments and job characteristics. This is also in line with Song and Gao (2020), who emphasize the difference between working from home and taking work home.

Our findings complement the existing literature and suggest that while flexibility may offer certain advantages, it can also introduce challenges, particularly for women. This calls for a more tailored approach to the design and implementation of flexible work policies, considering the diverse needs and experiences of different employee groups. Future research needs to be based on more comprehensive and detailed data about locational and temporal flexibility at the level of individual jobs (rather than using occupation-level information or restricting attention to actual remote work activities only). This will support our understanding of the consequences of both employee- and employer-sided flexibility for individual well-being.

Statements and Declarations

Competing Interests none

Funding not applicable

Data availability and replication codes All datasets used are publicly available. ATUS data can be obtained via `https://www.bls.gov/tus/` and O*Net data is available via `https://www.onetcenter.org/overview.html`. STATA replication files are available from the authors upon request.

Acknowledgements We are grateful for valuable comments made by Carina Keldenich, Philipp Biermann, Ulrike Vollstädt, Michael Kvasnicka, Jan Delhey and Jeannette Brosig-Koch as well as participants of the BeWell meeting in Magdeburg 2024 and the FIS-Forum in Berlin 2024.

References

Allen, T. D., T. D. Golden, and K. M. Shockley (2015): "How Effective Is Telecommuting? Assessing the Status of Our Scientific Findings," *Psychological Science in the Public Interest*, 16, 40–68.

Angrist, J. D., and J.-S. Pischke (2009): *Mostly harmless econometrics: An empiricist's companion*: Princeton university press.

Ashforth, B. E., G. E. Kreiner, and M. Fugate (2000): "All in a day's work: Boundaries and micro role transitions," *Academy of Management Review*, 25, 472–491.

Barry, S. (2004): *The Paradox of Choice. Why More Is Less*: Ecco/HarperCollins Publishers, NY.

Baumeister, R. F., and M. R. Leary (1995): "The need to belong: Desire for interpersonal attachments as a fundamental human motivation," *Psychological Bulletin*, 117, 497–529.

Bertoni, M., D. Cavapozzi, G. Pasini, and C. Pavese (2021): "Remote Working and Mental Health during the First Wave of COVID-19 Pandemic," *Working Paper, Available at SSRN:* http://dx.doi.org/10.2139/ssrn.4111999.

Bertrand, M. (2013): "Career, family, and the well-being of college-educated women," *American Economic Review*, 103, 244–250.

Bloom, N., J. Liang, J. Roberts, and Z. J. Ying (2015): "Does Working from Home Work? Evidence from a Chinese Experiment," *The Quarterly Journal of Economics*, 130, 165–218.

Bryson, A., and G. MacKerron (2017): "Are You Happy While You Work?" *The Economic Journal*, 127, 106–125.

Bureau of Labor Statistics (2024a): "American Time Use Survey – Results," online via https://www.bls.gov/bls/news-release/home.htm#ATUS,accessed2024-08-27, (as of August 27,2024).

——— (2024b): "Occupational Employment and Wage Statistics," U.S. Department of Labor, online via www.bls.gov/oes/, (as of August 13,2024).

Cheng, Z., S. Mendolia, A. R. Paloyo, D. A. Savage, and M. Tani (2021): "Working parents, financial insecurity, and childcare: mental health in the time of COVID-19 in the UK," *Review of Economics of the Household*, 19, 123–144.

Choudhury, P., T. Khanna, C. A. Makridis, and K. Schirmann (2024): "Is hybrid work the best of both worlds? Evidence from a field experiment," *Review of Economics and Statistics*, 1–24.

Cowan, B. (2024): "Time use, college attainment, and the working-from-home revolution," *Journal of Population Economics*, 37, 60.

Dingel, J. I., and B. Neiman (2020): "How many jobs can be done at home?" *Journal of public economics*, 189, 104235.

Emanuel, N., and E. Harrington (2024): "Working Remotely? Selection, Treatment, and the Market for Remote Work," *American Economic Journal: Applied Economics*, 16, 528–59.

Flood, S., A. Meier, and K. Musick (2020): "Reassessing Parents' Leisure Quality With Direct Measures of Well-Being: Do Children Detract From Parents' Down Time?" *Journal of Marriage and Family*, 82, 1326–1339.

Flèche, S., and C. Smith (2017): "Time use surveys and experienced well-being in France and the United States," *OECD Statistics Working Papers, 2017/07*, https://www.oecd-ilibrary.org/economics/time-use-surveys-and-experienced-well-being-in-france-and-the-united-states_be97d4e6-en.

Gagné, M., and E. L. Deci (2005): "Self-determination theory and work motivation," *Journal of Organizational Behavior*, 26, 331–362.

Giménez-Nadal, J. I., J. A. Molina, and J. Velilla (2020): "Work time and well-being for workers at home: evidence from the American Time Use Survey," *International Journal of Manpower*, 41, 184–206.

Giménez-Nadal, J. I., and J. Velilla (2024): "Home-based work, time allocations, and subjective well-being: gender differences in the United Kingdom," *Empirica*, 51, 1–33.

Glass, J. L., and M. C. Noonan (2016): "Telecommuting and earnings trajectories among American women and men 1989–2008," *Social Forces*, 95, 217–250.

Glomb, T. M., J. D. Kammeyer-Mueller, and M. Rotundo (2004): "Emotional labor demands and compensating wage differentials.," *Journal of applied psychology*, 89, 700.

Golden, L. (1996): "The Economics of Worktime Length, Adjustment, and Flexibility," *Review of Social Economy*, 54, 1–45.

——— (2006): "Hours of labor supply: A more flexible approach," in *Handbook of Contemporary Behavioral Economics: Foundations and Developments* ed. by Altman, M. Armonk, NY: M. E. Sharpe, 479–496.

Golden, T. D., J. F. Veiga, and Z. Simsek (2006): "Telecommuting's differential impact on work-family conflict: Is there no place like home?" *Journal of Applied Psychology*, 91, 1340–1350.

Gronau, R. (1977): "Leisure, Home Production, and Work–the Theory of the Allocation of Time Revisited," *Journal of Political Economy*, 85, 1099–1123.

Gueguen, G., and C. Senik (2023): "Adopting telework: The causal impact of working from home on subjective well-being," *British Journal of Industrial Relations*, 61, 832–868.

Han, J., and C. Kaiser (2024): "Time use and happiness: US evidence across three decades," *Journal of Population Economics*, 37, 15.

Hetschko, C., A. Knabe, and R. Schöb (2021): "Happiness, Work, and Identity," in *Handbook of Labor, Human Resources and Population Economics* ed. by Zimmermann, K. F. Cham: Springer International Publishing, 1–26.

Hill, E. J., A. J. Hawkins, and B. C. Miller (1996): "Work and family in the virtual office: Perceived influences of mobile telework," *Family Relations*, 45, 293–301.

Hoang, T. T. A., and A. Knabe (2022): "Social Contacts, Unemployment, and Experienced Well-Being. Evidence from Time-Use Data," *CESifo Working Paper No. 9953*.

Hobfoll, S. E. (1989): "Conservation of resources: A new attempt at conceptualizing stress," *American Psychologist*, 44, 513–524.

——— (2001): "The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory," *Applied Psychology*, 50, 337–421.

Hout, M., T. W. Smith, and P. V. Marsden (2015): "Prestige and socioeconomic scores for the 2010 Census codes," *Methodological Report MR124, Chicago, NORC*.

Kahneman, D., and A. B. Krueger (2006): "Developments in the Measurement of Subjective Well-Being," *Journal of Economic Perspectives*, 20, 3–24.

Kahneman, D., A. B. Krueger, D. A. Schkade, N. Schwarz, and A. A. Stone (2004): "A Survey Method for Characterizing Daily Life Experience: The Day Reconstruction Method," *Science*, 306, 1776–1780.

Keldenich, C. (2022): "Work, motherhood and women's affective well-being," *Review of Economics of the Household*, 20, 1345–1375.

Knabe, A., S. Rätzel, R. Schöb, and J. Weimann (2010): "Dissatisfied with Life but Having a Good Day: Time-use and Well-being of the Unemployed," *The Economic Journal*, 120, 867–889.

Lordan, G., and J.-S. Pischke (2022): "Does Rosie like riveting? Male and female occupational choices," *Economica*, 89, 110–130.

Lu, Z., and W. Zhuang (2023): "Can Teleworking Improve Workers' Job Satisfaction? Exploring the Roles of Gender and Emotional Well-Being," *Applied Research in Quality of Life*, 18, 1433–1452.

Mas, A., and A. Pallais (2017): "Valuing alternative work arrangements," *American Economic Review*, 107, 3722–3759.

Meier, A., K. Musick, S. Flood, and R. Dunifon (2016): "Mothering Experiences: How Single Parenthood and Employment Structure the Emotional Valence of Parenting," *Demography*, 53, 649–674.

Moens, E., L. Lippens, P. Sterkens, J. Weytjens, and S. Baert (2022): "The COVID-19 crisis and telework: a research survey on experiences, expectations and hopes," *The European Journal of Health Economics*, 23, 729–753.

Mongey, S., L. Pilossoph, and A. Weinberg (2021): "Which workers bear the burden of social distancing?" *The Journal of Economic Inequality*, 19, 509–526.

Moulton, B. R. (1990): "An Illustration of a Pitfall in Estimating the Effects of Aggregate Variables on Micro Units," *The Review of Economics and Statistics*, 72, 334–338.

Musick, K., A. Meier, and S. Flood (2016): "How Parents Fare: Mothers' and Fathers' Subjective Well-Being in Time with Children," *American Sociological Review*, 81, 1069–1095.

Nagler, M., J. Rincke, and E. Winkler (2024): "Working from home, commuting, and gender," *Journal of Population Economics*, 37, 1–23.

Negraia, D. V., and J. M. Augustine (2020): "Unpacking the Parenting Well-Being Gap: The Role of Dynamic Features of Daily Life across Broader Social Contexts," *Social Psychology Quarterly*, 83, 207–228.

Nelson, S. K., K. Kushlev, T. English, E. W. Dunn, and S. Lyubomirsky (2013): "In Defense of Parenthood: Children Are Associated With More Joy Than Misery," *Psychological Science*, 24, 3–10.

Oakman, J., N. Kinsman, R. Stuckey, M. Graham, and V. Weale (2020): "A rapid review of mental and physical health effects of working at home: how do we optimise health?" *BMC public health*, 20, 1–13.

Possenriede, D., W. H. J. Hassink, and J. Plantenga (2016): "Does temporal and locational flexibility of work increase the supply of working hours? Evidence from the Netherlands," *IZA Journal of Labor Policy*, 5, 16.

Roeters, A., and P. Gracia (2016): "Child Care Time, Parents' Well-Being, and Gender: Evidence from the American Time Use Survey," *Journal of Child and Family Studies*, 25, 2469–2479.

Ryan, R. M., and E. L. Deci (2000): "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being," *American Psychologist*, 55, 68–78.

Senik, C., A. E. Clark, C. d'Ambrosio, A. Lepinteur, and C. Schröder (2024): "Teleworking and life satisfaction during COVID-19: the importance of family structure," *Journal of Population Economics*, 37, 1–24.

Song, Y., and J. Gao (2020): "Does Telework Stress Employees Out? A Study on Working at Home and Subjective Well-Being for Wage/Salary Workers," *Journal of Happiness Studies*, 21, 2649–2668.

Sonnentag, S., and C. Fritz (2015): "Recovery from job stress: The stressor-detachment model as an integrative framework," *Journal of Organizational Behavior*, 36, S72–S103.

Suppa, N. (2021): "Unemployment and Subjective Well-Being," in *Handbook of Labor, Human Resources and Population Economics* ed. by Zimmermann, K. F. Cham: Springer International Publishing, 1–32.

Vega, R. P., A. J. Anderson, and S. A. Kaplan (2015): "A Within-Person Examination of the Effects of Telework," *Journal of Business and Psychology*, 30, 313–323.

White, M. P., and P. Dolan (2009): "Accounting for the Richness of Daily Activities," *Psychological Science*, 20, 1000–1008.

Wolf, T., M. Metzing, and R. E. Lucas (2022): "Experienced Well-Being and Labor Market Status: The Role of Pleasure and Meaning," *Social Indicators Research*, 163, 691–721.

Supplementary Material for Homebound Happiness? Teleworkability and emotional well-being during labor and non-labor activities

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22 January 2025

A Descriptive Statistics

Table A.1: Unweighted Descriptive Statistics - ATUS Activities

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All Activities			**Activities in WB Module**				
	Obs.	Share in %	Female Share	Obs.	Share in %	Net	Affect Pos.	Neg.
Labor/Paid Work	**21,074**	**7.21**	**46.29**	**4,763**	**10.43**	**2.81**	**4.14**	**1.33**
Unpaid Work	**64,711**	**22.14**	**62.02**	**11,249**	**24.64**	**3.31**	4.33	**1.02**
Childcare	18,307	6.26	63.49	2,746	6.01	3.87	4.96	1.09
Elder care	853	0.29	52.99	80	0.18	3.16	4.44	1.28
Housework	37,797	12.93	62.57	7,077	15.50	3.17	4.16	0.99
Grocery shopping	5,893	2.02	55.40	1,031	2.26	2.97	3.93	0.95
Using HH or professional services	1,861	0.64	61.53	315	0.69	2.82	4.04	1.22
Leisure	**49,282**	**16.86**	**50.48**	**9,199**	**20.15**	**3.43**	**4.37**	**0.94**
Socializing	10,237	3.50	56.84	1,919	4.20	4.04	4.93	0.89
Relaxing and Entertainment	33,422	11.43	48.87	6,090	13.34	3.08	4.06	0.99
Sports Recreation and Exercise	3,653	1.25	44.02	789	1.73	4.12	4.92	0.81
Religious and spiritual activity	1,970	0.67	56.60	401	0.88	4.64	5.31	0.67
Other	**157,216**	**53.79**	**52.23**	**20,447**	**44.78**	**3.32**	**4.30**	**0.98**
Personal care & Sleeping	56,014	19.16	52.44	150	0.33	2.17	3.67	1.50
Education	1,227	0.42	59.01	270	0.59	2.59	4.12	1.53
Consumer Purchases	5,018	1.72	58.77	884	1.94	3.30	4.18	0.88
Eating and drinking	30,134	10.31	49.01	6,953	15.23	3.61	4.52	0.90
Volunteering	1,374	0.47	57.35	252	0.55	4.24	5.05	0.81
Traveling	63,449	21.71	52.80	11,938	26.15	3.16	4.18	1.01
Observations	**292,283**			**45,658**				

Source: Author's own calculations based on ATUS 2010, 2012, 2013, 2021.

Table A.2: Summary Statistics

	(1) All	(2) Men	(3) Women
Individual Characteristics			
Female	0.46		
Age	40.41	40.25	40.59
Educational Degree			
No Degree	0.10	0.12	0.09
High-School Degree	0.47	0.49	0.45
Associate Degree	0.10	0.09	0.12
Bachelor Degree	0.22	0.21	0.22
Master Degree or higher	0.11	0.09	0.12
Born in U.S	0.84	0.82	0.86
Urban	0.85	0.84	0.86
Partner in HH	0.59	0.62	0.55
Married	0.53	0.56	0.48
No of Children under 18 in HH	0.80	0.81	0.80
Child under 6 in HH (dum)	0.15	0.16	0.14
Weekly Earnings	842.19	952.02	714.05
Weekly Working Hours	38.21	40.68	35.32
Occupational Characteristics			
Prestige	42.37	41.80	43.04
Hourly Wage (mean)	23.07	23.94	22.07
Working Hours (mean)	40.00	40.00	40.00
Total Employment in 1,000	796.14	682.82	928.33
Diff in hourly wage between 90th and 10th perc.	21.57	22.83	20.10
Required education (mean)	3.64	3.45	3.85
Required tenure (mean)	4.85	4.90	4.80
Physical Demand	-0.13	0.08	-0.38
Cognitive Demand	-0.14	-0.15	-0.12
Emotional Demand	0.07	0.01	0.14
Observations	15586	7785	7801

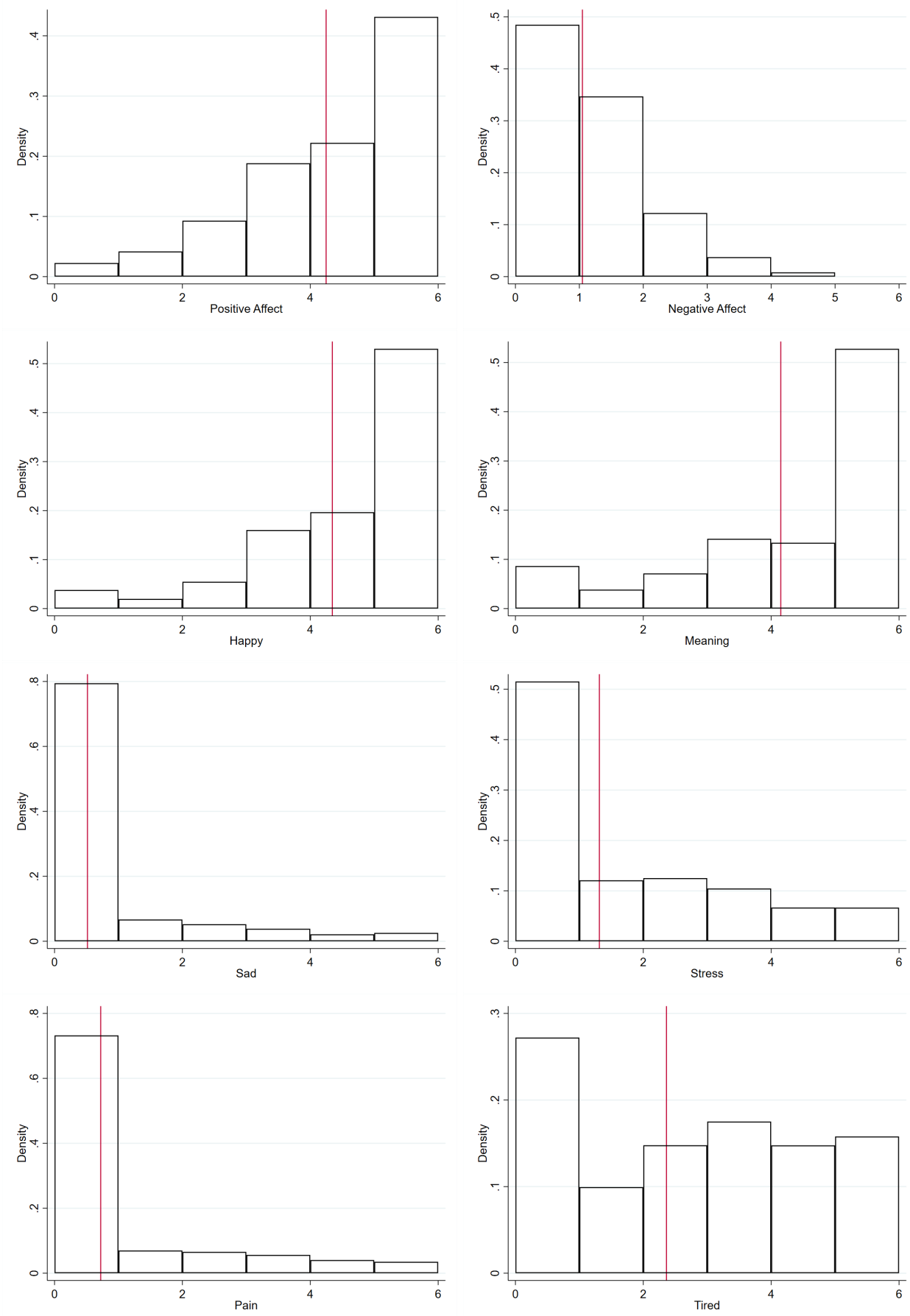
Source: Authors' calculations based on ATUS 2010, 2012, 2013 and 2021; O*Net version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010.
Notes: Observations are weighted with respondent weights for the WB Module.

Table A.3: Summary Statistics - Activity Characteristics

	All	Labor	Unpaid Work	Leisure	Other
Month					
January	0.07	0.07	0.07	0.07	0.07
February	0.06	0.07	0.06	0.05	0.06
March	0.09	0.08	0.09	0.09	0.09
April	0.09	0.09	0.09	0.10	0.09
May	0.08	0.08	0.09	0.09	0.08
June	0.08	0.09	0.08	0.08	0.08
July	0.09	0.10	0.09	0.10	0.09
August	0.09	0.09	0.08	0.09	0.09
September	0.08	0.08	0.09	0.08	0.08
October	0.08	0.08	0.08	0.08	0.09
November	0.09	0.08	0.09	0.08	0.09
December	0.09	0.09	0.09	0.09	0.09
Year					
2010	0.26	0.26	0.26	0.24	0.26
2012	0.29	0.29	0.28	0.27	0.31
2013	0.28	0.26	0.28	0.31	0.29
2021	0.17	0.19	0.18	0.19	0.15
Day of Week					
Sunday	0.14	0.06	0.16	0.18	0.14
Monday	0.14	0.18	0.14	0.13	0.13
Tuesday	0.14	0.17	0.14	0.13	0.14
Wednesday	0.14	0.18	0.14	0.13	0.14
Thursday	0.14	0.17	0.13	0.13	0.15
Friday	0.14	0.17	0.13	0.13	0.14
Saturday	0.15	0.07	0.16	0.17	0.15
Time of Day					
Early Morning (6-9am)	0.17	0.28	0.17	0.10	0.17
Morning (9am-1pm)	0.21	0.27	0.18	0.19	0.22
Afternoon (1-6pm)	0.31	0.28	0.32	0.31	0.32
Evening (6-10pm)	0.23	0.07	0.27	0.32	0.22
Night (10pm-6am)	0.07	0.10	0.07	0.08	0.07
No of people present	0.88	1.16	0.87	0.93	0.79
Duration of Activity	1.19	3.64	0.77	1.58	0.54
Observations	45658	4763	11249	9199	20447

Source: Authors' calculations based on ATUS 2010, 2012, 2013 and 2021; O*Net version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010.
Notes: Observations are weighted with respondent weights for the WB Module.

Figure A.1: Distribution of positive and negative affect and emotions



Source: Authors' calculations and illustrations based on ATUS 2010, 2012, 2013 and 2021.
Notes: Histograms are weighted using ATUS respondent weights.

*Table A.4: O*Net List of Items of Teleworkability and Time Flexibility Factors*

Item	**Activity/Question**	**Occupation with highest value**	TW	TF
v4C1a2h	How frequently does your current job require electronic mail?	Insurance Sales Agents; Human Resources Managers	X	
v4C1d3	How often is dealing with violent or physically aggressive people a part of your current job?	Correctional Officers and Jailers	X	
v4C2a1c	How often does your current job require you to work outdoors, exposed to all weather conditions?	Meter Readers	X	
v4C2a1d	How often does your current job require you to work outdoors, under cover (like in an open shed)?	Wind Turbine Service Technicians	X	
v4C2c1b	How often does your current job require that you be exposed to diseases or infection?	Dental Hygienists	X	
v4C2c1f	How often does your current job require that you be exposed to minor burns, cuts, bites, or stings?	Metal Furnace Operators, Tenders, Pourers, and Casters	X	
v4C2d1d	How much time in your current job do you spend walking or running?	Dining Room and Cafeteria Attendants and Bartender Helpers	X	
v4C2e1d	In your current job, how often do you wear common protective or safety equipment such as safety shoes, glasses, gloves, hearing protection, hard hats, or life jackets?	Structural Iron and Steel Workers	X	
v4C2e1e	In your current job, how often do you wear specialized protective or safety equipment, such as breathing apparatus, safety harness, full protection suits, or radiation protection?	Wind Turbine Service Technicians	X	
v4A1b2	Inspecting Equipment, Structures, or Materials	Nuclear Technicians	X	
v4A3a2	Handling and Moving Objects	Roofers	X	
v4A3a3	Controlling Machines and Processes	Machinists	X	
v4A3a4	Operating Vehicles, Mechanized Devices, or Equipment	Aircraft Pilots and Flight Engineers; Manufactured Building and Mobile Home Installers	X	
v4A3b4	Repairing and Maintaining Mechanical Equipment	Millwrights	X	
v4A3b5	Repairing and Maintaining Electronic Equipment	Wind Turbine Service Technicians	X	
v4A4a8	Performing for or Working Directly with the Public	First-Line Supervisors of Firefighting and Prevention Workers	X	
v4C1a4	How much contact with others (by telephone, face-to-face, or otherwise) is required to perform your current job?	Interviewers; Medical Assistants		X
v4C1b1e	How important are interactions that require you to work with or contribute to a work group or team to perform your current job?	Actors		X
v4C3a4	In your current job, how much freedom do you have to make decisions without supervision?	Surgeons; Podiatrists		X
v4C3b8	How much freedom do you have to determine the tasks, priorities, or goals of your current job?	Podiatrists		X

Source: Authors' calculations based on O*Net version 18.1 - 29.0.

*Table A.5: O*Net List of Items Job Demand Factors & Rotated Factor Loadings (> 0.5) for year 2010*

Item	**Activity/Question**	Factor Analysis		
		CD	PD	ED
v4A1a1	Getting Information	0.7866		
v4A1a2	Monitoring Processes, Materials, or Surroundings	0.6346		
v4A1b1	Identifying Objects, Actions, and Events	0.7452		
v4A1b3	Estimating the Quantifiable Characteristics of Products, Events, or Inf,	0.7684		
v4A2a1	Judging the Qualities of Objects, Services, or People	0.7905		
v4A2a2	Processing Information	0.7964		
v4A2a3	Evaluating Information to Determine Compliance with Standards	0.7282		
v4A2a4	Analyzing Data or Information	0.8545		
v4A2b1	Making Decisions and Solving Problems	0.8822		
v4A2b2	Thinking Creatively	0.8105		
v4A2b3	Updating and Using Relevant Knowledge	0.8312		
v4A2b4	Developing Objectives and Strategies	0.8641		
v4A2b5	Scheduling Work and Activities	0.8629		
v4A2b6	Organizing, Planning, and Prioritizing Work	0.8323		
v4A3a1	Performing General Physical Activities		0.8524	
v4A3b1	Working with Computers	0.6607		
v4A3b2	Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equi,		0.5228	
v4A3b6	Documenting/Recording Information	0.7281		
v4A4a1	Interpreting the Meaning of Information for Others	0.848		
v4A4a2	Communicating with Supervisors, Peers, or Subordinates	0.8175		
v4A4a3	Communicating with People Outside the Organization Level	0.6909		
v4A4a4	Establishing and Maintaining Interpersonal Relationships	0.6361		
v4A4a5	Assisting and Caring for Others			0.605
v4A4a6	Selling or Influencing Others	0.5449		
v4A4a7	Resolving Conflicts and Negotiating with Others	0.6872		
v4A4b1	Coordinating the Work and Activities of Others	0.8026		
v4A4b2	Developing and Building Teams	0.8289		
v4A4b3	Training and Teaching Others	0.764		
v4A4b4	Guiding, Directing, and Motivating Subordinates Level	0.7949		
v4A4b5	Coaching and Developing Others	0.799		
v4A4b6	Providing Consultation and Advice to Others Level	0.8838		
v4A4c1	Performing Administrative Activities	0.6947		
v4A4c2	Staffing Organizational Units	0.7554		
v4A4c3	Monitoring and Controlling Resources	0.7527		
v4C1a2c	How frequently does your current job require public speaking (one speaker with an audience)?	0.5251		
v4C1a2f	How frequently does your current job require telephone conversation?	0.512		
v4C1a2j	How frequently does your current job require written letters and memos?	0.5621		
v4C1a2l	*How often does your current job require face-to-face discussions with individuals and within teams?*			
v4C1b1f	In your current job, how important are interactions that require you to deal with external customers (as in retail sales) or the public in general (as in police work)?			0.7526
v4C1b1g	In your current job, how important are interactions that require you to coordinate or lead others in accomplishing work activities (not as a supervisor or team leader)?			0.5216
v4C1c1	How responsible are you for the health and safety of other workers on your current job?		0.7512	
v4C1c2	*How responsible are you for work outcomes and results of other workers on your current job?*			
v4C1d1	How often are conflict situations a part of your current job?			0.7406
v4C1d2	How often is dealing with unpleasant, angry, or discourteous people a part of your current job?			0.7565
v4C2a1a	How often does your current job require you to work indoors in an environmentally controlled environment (like a warehouse with air conditioning)?		-0.682	
v4C2a1b	How often does your current job require you to work in an environment that is not environmentally controlled (like a warehouse without air conditioning)?		0.765	
v4C2a1e	How often does your current job require you to work in an open vehicle or operating equipment (like a tractor)?		0.763	
v4C2a1f	*How often does your current job require you to work in a closed vehicle or operate enclosed equipment (like a car)?*			

Continued on next page

*Table A.5 (cont.): O*Net Work Activities Module - List of Items / Descriptives for 2013*

Item	**Activity/Question**	Factor Analysis		
		CD	PD	ED
v4C2a3	How physically close to other people are you when you perform your current job?			0.5365
v4C2b1a	In your current job, how often are you exposed to sounds and noise levels that are distracting and uncomfortable?		0.7896	
v4C2b1b	In your current job, how often are you exposed to very hot (above 90° F) or very cold (under 32° F) temperatures?		0.85	
v4C2b1c	In your current job, how often are you exposed to extremely bright or inadequate lighting conditions?		0.845	
v4C2b1d	In your current job, how often are you exposed to contaminants (such as pollutants, gases, dust, or odors)?		0.8433	
v4C2b1e	In your current job, how often are you exposed to cramped work space that requires getting into awkward positions?		0.8491	
v4C2b1f	In your current job, how often are you exposed to whole body vibration (like operating a jackhammer or earth moving equipment)?		0.7356	
v4C2c1a	*How often does your current job require that you be exposed to radiation?*			
v4C2c1c	How often does your current job require that you be exposed to high places?		0.789	
v4C2c1d	How often does your current job require that you be exposed to hazardous conditions? T		0.8004	
v4C2c1e	How often does your current job require that you be exposed to hazardous equipment?		0.8735	
v4C2d1a	How much time in your current job do you spend sitting?		-0.677	
v4C2d1b	How much time in your current job do you spend standing?		0.6429	
v4C2d1c	How much time in your current job do you spend climbing ladders, scaffolds, poles, etc.?		0.7605	
v4C2d1e	How much time in your current job do you spend kneeling, crouching, stooping, or crawling?		0.7748	
v4C2d1f	How much time in your current job do you spend keeping or regaining your balance?		0.7722	
v4C2d1g	How much time in your current job do you spend using your hands to handle, control, or feel objects, tools, or controls?		0.6166	
v4C2d1h	How much time in your current job do you spend bending or twisting your body?		0.7712	
v4C2d1i	How much time in your current job do you spend making repetitive motions?	-0.5832		
v4C3a1	*How serious a mistake can you make on your current job (one you can't easily correct)?*			
v4C3a2a	In your current job, what results do your decisions usually have on other people or the image or reputation or financial resources of your employer?			0.5478
v4C3a2b	In your current job, how often do your decisions affect other people or the image or reputation or financial resources of your employer?			0.6501
v4C3b2	*How automated is your current job?*			
v4C3b4	*How important to your current job is being very exact or highly accurate?*			
v4C3b7	*How important to your current job are continuous, repetitious physical activities (like key entry) or mental activities (like checking entries in a ledger)?*			
v4C3c1	*How competitive is your current job?*			
v4C3d1	*How often does your current job require you to meet strict deadlines?*			
v4C3d3	*How important to your current job is keeping a pace set by machinery or equipment?*			

Source: Authors' calculations based on O*Net version 18.1 - 29.0.
Note: Columns (3) to (5) contain the rotated factor loadings. Absolute factor loadings below 0.5 are left blank. Items in *italics* do not have a loading above 0.5 on either on of the factors and are thus not included.

B Merging occupational information to ATUS data using crosswalks

For ATUS wave 2021, CPS occupations in 2018 Census Codes have to be merged to occupational information in the 2019 SOC classifications while for ATUS waves 2012 and 2013, CPS occupations in 2010 Census Codes have to be merged to occupational information in the 2010 SOC classifications.

Unfortunately, merging occupational information from the O*Net based on SOC classifications to occupational classifications (based on Census Codes) in the CPS is not possible on a clear one-to-one basis, as in a number of cases more than one SOC code refer to the same Census code (both in the 2010 as well as the 2018-2019 version). In cases, in which we observe multiple SOC occupations referring to one Census code, we thus average the occupational information over all corresponding SOC occupations in order to obtain a unique value (for each item) which can be merged to the CPS occupations. For example in the 2018-2019 Census-SOC crosswalk 42.74% of Census occupations can be directly merged to one SOC classifications. Occupational information for the remaining Census occupations are averaged over, on average, 6.69 SOC occupations with a maximum of 38 SOC categories referring to one Census code in the case of postsecondary teachers (as the SOC classifications differentiates the teachers with respect to their subjects).

For ATUS wave 2010, we observe occupations based on the Census 2002 classification. Thus, Census 2002 codes for the year 2010 have to additionally be translated into Census 2010 codes using a separate crosswalk provided by the U.S. Census Bureau. For the main analysis, we choose the most conservative option and only transform those occupation with a unique Census 2002 - Census 2010 crosswalk.[1] All further steps (of merging occupational information based on 2010 SOC classifications from O*Net to the 2010 CPS occupations are conduced in line with the steps taken for all other years, as described above.

[1]For 12 occupations (2.36%), Census 2010 classifications are more detailed than Census 2002, making it unclear which Census 2010 code should be merged to the available occupational classifications. These occupations are set to missing. We will conduct sensitivity checks by using different methods of imputation in a later stage.

C Full estimation tables

Table C.1: Estimation Results by Emotions - Labor Activities

	Women				Men			
Outcome - Happy								
TW	-0.132***	-0.136**	-0.367***	-0.364***	-0.078	-0.072	-0.232*	-0.230*
	(0.044)	(0.054)	(0.129)	(0.130)	(0.057)	(0.049)	(0.135)	(0.133)
TF				0.074				-0.015
				(0.045)				(0.036)
TW x TF				-0.027				-0.016
				(0.040)				(0.051)
Outcome - Meaning								
TW	-0.077	-0.106	-0.434**	-0.419**	-0.052	-0.043	-0.053	-0.055
	(0.061)	(0.065)	(0.177)	(0.180)	(0.052)	(0.056)	(0.166)	(0.169)
TF				0.107*				0.012
				(0.057)				(0.043)
TW x TF				-0.094**				0.012
				(0.041)				(0.053)
Outcome - Pain								
TW	-0.210***	-0.124**	-0.124	-0.119	-0.166***	-0.112***	0.106	0.113
	(0.054)	(0.058)	(0.121)	(0.118)	(0.032)	(0.034)	(0.125)	(0.123)
TF				0.023				-0.008
				(0.051)				(0.029)
TW x TF				-0.028				-0.022
				(0.062)				(0.036)
Outcome - Sad								
TW	-0.015	0.057	0.135	0.119	0.013	0.046	0.066	0.067
	(0.049)	(0.061)	(0.118)	(0.119)	(0.032)	(0.034)	(0.119)	(0.119)
TF				0.109***				0.020
				(0.038)				(0.035)
TW x TF				0.057				0.010
				(0.050)				(0.031)
Outcome - Stress								
TW	0.174***	0.151***	0.338**	0.330**	0.249***	0.163***	0.056	0.041
	(0.046)	(0.052)	(0.134)	(0.136)	(0.051)	(0.057)	(0.144)	(0.148)
TF				0.074				0.028
				(0.054)				(0.043)
TW x TF				0.025				0.057
				(0.047)				(0.050)
Outcome - Tired								
TW	-0.138***	-0.019	0.268*	0.260*	-0.048	-0.045	-0.043	-0.083
	(0.047)	(0.050)	(0.137)	(0.136)	(0.049)	(0.051)	(0.140)	(0.133)
TF				0.142***				0.045
				(0.049)				(0.071)
TW x TF				0.015				0.137***
				(0.048)				(0.045)
Set of Controls								
Activities		✓	✓	✓		✓	✓	✓
Individuals		✓	✓	✓		✓	✓	✓
Occupations			✓	✓			✓	✓
Observations	2089	2089	2089	2089	2674	2674	2674	2674
Cluster	185	185	185	185	232	232	232	232

Source: Author's own calculations and illustrations based on ATUS 2010, 2012, 2013 and 2021; O*Net version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010.

Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.2: Full Estimation Results - Women

	(1) **Labor**	(2) **Unpaid**	(3) **Leisure**	(4) **Other**
Teleworkability	-0.568***	-0.066	0.143	0.049
	(0.185)	(0.096)	(0.104)	(0.078)
Time Flexibility	0.009	0.067	-0.066*	0.009
	(0.057)	(0.049)	(0.039)	(0.040)
TW x TF	-0.085	0.031	-0.079**	-0.027
	(0.054)	(0.040)	(0.037)	(0.040)
Activity Characteristics				
Year (Ref: 2010)				
2012	0.168	0.136	0.167	0.129
	(0.139)	(0.122)	(0.115)	(0.094)
2013	0.137	0.161*	0.187*	0.147**
	(0.114)	(0.088)	(0.101)	(0.062)
2021	-0.219	-0.033	0.291**	0.148
	(0.184)	(0.126)	(0.134)	(0.102)
Month of Interview (Ref: January)				
February	-0.042	-0.041	-0.305	0.018
	(0.277)	(0.162)	(0.206)	(0.192)
March	-0.065	-0.221	-0.332**	-0.022
	(0.221)	(0.165)	(0.149)	(0.132)
April	-0.167	-0.235	-0.227	-0.017
	(0.198)	(0.152)	(0.160)	(0.154)
May	0.098	-0.012	-0.272	0.013
	(0.244)	(0.127)	(0.189)	(0.149)
June	0.454**	0.037	-0.042	0.076
	(0.211)	(0.171)	(0.207)	(0.176)
July	0.101	-0.084	-0.125	-0.064
	(0.234)	(0.149)	(0.175)	(0.154)
August	0.154	-0.208	-0.090	-0.047
	(0.229)	(0.144)	(0.222)	(0.139)
September	0.432*	-0.079	0.137	-0.046
	(0.256)	(0.177)	(0.171)	(0.194)
October	-0.322	-0.130	-0.316	-0.079
	(0.206)	(0.159)	(0.202)	(0.148)
November	0.125	0.064	-0.265*	0.268
	(0.282)	(0.168)	(0.152)	(0.189)
December	0.074	0.040	-0.194	0.053
	(0.351)	(0.164)	(0.206)	(0.207)
Day of the Week (Ref: Sunday)				
Monday	0.038	0.143*	-0.114	-0.154*
	(0.165)	(0.082)	(0.137)	(0.079)
Tuesday	0.136	0.016	0.074	-0.134
	(0.176)	(0.099)	(0.152)	(0.106)
Wednesday	-0.020	0.045	-0.139	-0.001
	(0.178)	(0.139)	(0.142)	(0.107)
Thursday	0.243	-0.070	0.084	-0.024
	(0.179)	(0.148)	(0.132)	(0.080)
Friday	-0.012	0.060	0.209	0.092
	(0.196)	(0.139)	(0.128)	(0.102)
Saturday	-0.066	0.022	0.213**	0.046
	(0.180)	(0.078)	(0.084)	(0.102)
Number of people present	-0.040	0.235***	0.342***	0.373***
	(0.046)	(0.028)	(0.029)	(0.022)
Activity duration (in hours)	-0.053**	0.034	0.003	0.062
	(0.023)	(0.031)	(0.027)	(0.038)
Time of the Day (Ref: Early Morning (6-9am))				
Morning (9am-1pm)	-0.191	-0.083	-0.028	0.140
	(0.133)	(0.103)	(0.129)	(0.105)
Afternoon (1-6pm)	-0.659***	-0.306***	-0.013	-0.004
	(0.121)	(0.091)	(0.101)	(0.073)
Evening (6-10pm)	-0.998***	-0.428***	-0.257**	-0.131
	(0.224)	(0.074)	(0.128)	(0.118)
Night (10pm-6am)	-0.857***	-0.296**	-0.673***	-0.282**
	(0.226)	(0.115)	(0.171)	(0.130)

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Table C.2 (cont.): Full Estimation Results - Women

	(1) **Labor**	(2) **Unpaid**	(3) **Leisure**	(4) **Other**
Individual Characteristics				
Age in Years	0.020***	0.013***	0.015***	0.018***
	(0.004)	(0.002)	(0.003)	(0.002)
Education (Ref: No degree)				
High School Degree	0.743**	0.019	-0.014	0.325**
	(0.299)	(0.130)	(0.200)	(0.132)
Associate Degree	0.511	0.045	0.222	0.367**
	(0.329)	(0.142)	(0.156)	(0.175)
Bachelors Degree	0.167	-0.176	-0.237	0.187
	(0.312)	(0.144)	(0.170)	(0.134)
Masters Degree or higher	0.459	-0.118	-0.136	0.122
	(0.316)	(0.162)	(0.201)	(0.163)
Born in the U.S.	-0.215	-0.302***	-0.149	-0.323***
	(0.179)	(0.098)	(0.138)	(0.089)
Metropolitan	-0.239	-0.019	-0.083	-0.120
	(0.153)	(0.097)	(0.105)	(0.090)
Partner in HH	-0.383**	-0.127	-0.426***	-0.141
	(0.194)	(0.110)	(0.127)	(0.125)
Married	0.414**	0.172	0.426***	0.239*
	(0.195)	(0.119)	(0.133)	(0.135)
Number of household children < 18	0.137***	-0.066*	-0.124***	-0.043
	(0.038)	(0.034)	(0.038)	(0.033)
Any children under 6	-0.123	0.263***	0.116	0.035
	(0.174)	(0.074)	(0.089)	(0.086)
Weekly Earnings	-0.000	-0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Working Hours	-0.013**	-0.000	0.002	0.001
	(0.006)	(0.004)	(0.003)	(0.004)
Occupational Characteristics				
Occupational Prestige	0.006	0.002	0.006	0.001
	(0.006)	(0.004)	(0.005)	(0.003)
Hourly Wage (mean)	0.010	0.015	-0.016	-0.017*
	(0.013)	(0.010)	(0.010)	(0.010)
Working Hours (mean)	2.602	3.771	-3.514	-0.335
	(7.500)	(5.707)	(5.107)	(3.941)
Total Employment in 1000	-0.000*	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Diff in hourly wage 90th-10th perc.	0.003	-0.008	0.008	0.013*
	(0.012)	(0.008)	(0.008)	(0.007)
Required Education (mean)	0.015	-0.041	0.012	-0.022
	(0.051)	(0.027)	(0.028)	(0.025)
Tenure (mean)	-0.106**	0.006	-0.035	-0.012
	(0.043)	(0.035)	(0.038)	(0.030)
Physical Demand	-1.218***	0.011	0.292	0.049
	(0.357)	(0.222)	(0.242)	(0.162)
Cognitive Demand	0.147	-0.017	-0.095	-0.016
	(0.163)	(0.105)	(0.103)	(0.078)
Emotional Demand	0.014	-0.003	0.152*	0.127**
	(0.104)	(0.097)	(0.082)	(0.053)
Constant	-101.837	-147.767	143.451	16.339
	(300.208)	(228.309)	(203.846)	(157.757)
State FE	✓	✓	✓	✓
Observations	2089	6585	4288	9910

Source: ATUS 2010, 2012, 2013 and 2021; O*Net version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010, own calculations.
Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.3: Full Estimation Results - Men

	(1) **Labor**	(2) **Unpaid**	(3) **Leisure**	(4) **Other**
Teleworkability	-0.149	0.214	-0.012	-0.118
	(0.173)	(0.148)	(0.187)	(0.080)
Time Flexibility	-0.025	0.054	0.055	0.000
	(0.047)	(0.033)	(0.054)	(0.034)
TW x TF	-0.053	-0.018	-0.001	-0.023
	(0.053)	(0.034)	(0.033)	(0.032)
Activity Characteristics				
Year (Ref: 2010)				
2012	-0.058	0.207*	0.083	-0.072
	(0.106)	(0.115)	(0.093)	(0.059)
2013	-0.071	0.180*	0.184**	0.014
	(0.158)	(0.093)	(0.088)	(0.067)
2021	-0.360**	-0.014	0.018	0.212**
	(0.178)	(0.124)	(0.121)	(0.091)
Month of Interview (Ref: January)				
February	0.130	-0.257	0.253	-0.037
	(0.173)	(0.201)	(0.216)	(0.136)
March	0.124	0.014	0.179	-0.109
	(0.223)	(0.149)	(0.185)	(0.117)
April	0.310*	-0.004	0.103	-0.177
	(0.178)	(0.143)	(0.223)	(0.128)
May	-0.131	-0.226	-0.052	-0.125
	(0.210)	(0.150)	(0.176)	(0.124)
June	-0.025	0.024	0.049	0.060
	(0.174)	(0.148)	(0.186)	(0.115)
July	0.383**	-0.039	0.090	-0.159
	(0.188)	(0.177)	(0.234)	(0.140)
August	-0.128	0.163	0.176	-0.121
	(0.174)	(0.162)	(0.225)	(0.126)
September	-0.024	-0.053	0.078	-0.155
	(0.209)	(0.153)	(0.193)	(0.127)
October	0.196	0.069	0.126	0.015
	(0.265)	(0.162)	(0.207)	(0.147)
November	0.269	0.105	0.084	-0.133
	(0.440)	(0.152)	(0.179)	(0.173)
December	0.349	0.072	0.091	0.042
	(0.254)	(0.161)	(0.185)	(0.129)
Day of the Week (Ref: Sunday)				
Monday	-0.330**	0.129	-0.216	-0.249**
	(0.158)	(0.105)	(0.133)	(0.108)
Tuesday	0.004	-0.238	-0.025	-0.249**
	(0.135)	(0.166)	(0.096)	(0.098)
Wednesday	-0.172	-0.350***	-0.053	-0.186**
	(0.143)	(0.090)	(0.110)	(0.084)
Thursday	-0.278*	-0.175	-0.172	-0.342***
	(0.161)	(0.112)	(0.115)	(0.118)
Friday	-0.033	-0.049	-0.080	-0.145
	(0.176)	(0.103)	(0.130)	(0.104)
Saturday	0.144	-0.065	0.073	-0.090
	(0.158)	(0.071)	(0.078)	(0.074)
Number of people present	0.025	0.272***	0.302***	0.336***
	(0.039)	(0.032)	(0.039)	(0.019)
Activity duration (in hours)	-0.050***	0.046*	0.045**	0.012
	(0.018)	(0.027)	(0.023)	(0.027)
Time of the Day (Ref: Early Morning (6-9am))				
Morning (9am-1pm)	-0.285***	-0.128	-0.242**	0.075
	(0.108)	(0.133)	(0.095)	(0.063)
Afternoon (1-6pm)	-0.355***	-0.206***	-0.213***	0.001
	(0.111)	(0.077)	(0.081)	(0.053)
Evening (6-10pm)	-0.944***	-0.323***	-0.346***	0.015
	(0.144)	(0.069)	(0.071)	(0.058)
Night (10pm-6am)	-0.416**	-0.322***	-0.582***	-0.368***
	(0.200)	(0.122)	(0.135)	(0.094)

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Table C.3 (cont.): Full Estimation Results - Men

	(1) **Labor**	(2) **Unpaid**	(3) **Leisure**	(4) **Other**
Individual Characteristics				
Age in Years	0.017***	0.019***	0.002	0.011***
	(0.003)	(0.003)	(0.003)	(0.002)
Education (Ref: No degree)				
High School Degree	0.184	0.053	-0.162	0.087
	(0.115)	(0.161)	(0.159)	(0.116)
Associate Degree	0.389*	0.130	0.089	0.097
	(0.229)	(0.202)	(0.156)	(0.151)
Bachelors Degree	-0.050	-0.132	-0.284	-0.238*
	(0.154)	(0.165)	(0.215)	(0.128)
Masters Degree or higher	0.181	-0.150	-0.278	-0.264*
	(0.196)	(0.180)	(0.231)	(0.138)
Born in the U.S.	-0.031	-0.605***	-0.350***	-0.158**
	(0.108)	(0.092)	(0.093)	(0.070)
Metropolitan	0.075	0.216*	-0.119	-0.048
	(0.148)	(0.116)	(0.090)	(0.068)
Partner in HH	-0.372**	0.368**	0.023	0.035
	(0.180)	(0.164)	(0.126)	(0.107)
Married	0.401**	-0.079	0.219*	0.138
	(0.164)	(0.157)	(0.120)	(0.090)
Number of household children < 18	0.096	0.039	-0.102	-0.075***
	(0.058)	(0.045)	(0.074)	(0.029)
Any children under 6	-0.124	0.341***	0.097	0.103
	(0.151)	(0.086)	(0.107)	(0.067)
Weekly Earnings	-0.000	-0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Working Hours	0.001	-0.003	0.004	-0.003
	(0.004)	(0.004)	(0.003)	(0.002)
Occupational Characteristics				
Occupational Prestige	0.021***	-0.004	-0.001	-0.004
	(0.006)	(0.004)	(0.004)	(0.004)
Hourly Wage (mean)	0.001	0.002	0.003	-0.019**
	(0.017)	(0.012)	(0.010)	(0.008)
Working Hours (mean)	-2.249	-8.499	-9.321	-4.422
	(12.168)	(5.343)	(6.485)	(4.548)
Total Employment in 1000	-0.000	0.000	0.000	-0.000*
	(0.000)	(0.000)	(0.000)	(0.000)
Diff in hourly wage 90th-10th perc.	0.005	0.005	-0.002	0.017**
	(0.012)	(0.009)	(0.009)	(0.007)
Required Education (mean)	-0.083*	-0.050	-0.049	0.027
	(0.048)	(0.034)	(0.031)	(0.022)
Tenure (mean)	-0.027	-0.014	-0.005	-0.012
	(0.039)	(0.033)	(0.027)	(0.026)
Physical Demand	-0.169	0.345	-0.107	-0.119
	(0.278)	(0.219)	(0.295)	(0.113)
Cognitive Demand	-0.108	-0.067	0.060	0.046
	(0.110)	(0.083)	(0.090)	(0.066)
Emotional Demand	-0.071	-0.013	0.076	-0.023
	(0.086)	(0.074)	(0.096)	(0.054)
Constant	91.569	342.983	376.306	180.053
	(486.649)	(213.811)	(259.359)	(181.886)
State FE	✓	✓	✓	✓
Observations	2674	4664	4911	10537

Source: ATUS 2010, 2012, 2013 and 2021; O*Net version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010, own calculations.
Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.4: Estimation Results by Emotions - Non-labor activities (Women Sample)

	(1)	(2)	(3)	(4)	(5)	(6)
	Unpaid Work		**Leisure**		**Other**	
Outcome - Happy						
TW	-0.113***	-0.087	-0.090***	-0.036	-0.033	-0.036
	(0.029)	(0.070)	(0.032)	(0.089)	(0.023)	(0.065)
TF		0.035		-0.006		0.040
		(0.032)		(0.032)		(0.029)
TW x TF		0.017		-0.070**		-0.018
		(0.026)		(0.029)		(0.026)
Outcome - Meaningful						
TW	-0.148***	-0.100	-0.079*	-0.039	-0.103***	-0.033
	(0.038)	(0.102)	(0.045)	(0.125)	(0.037)	(0.075)
TF		0.084		-0.086*		-0.001
		(0.055)		(0.046)		(0.036)
TW x TF		0.021		-0.064*		-0.043
		(0.043)		(0.038)		(0.035)
Outcome - Pain						
TW	-0.084***	-0.149*	-0.049	-0.257***	-0.099***	-0.240***
	(0.030)	(0.076)	(0.034)	(0.075)	(0.028)	(0.056)
TF		-0.027		-0.027		0.005
		(0.035)		(0.026)		(0.024)
TW x TF		-0.027		-0.039		-0.072***
		(0.021)		(0.026)		(0.027)
Outcome - Sad						
TW	-0.050*	-0.112	-0.047**	-0.061	-0.073***	-0.102*
	(0.026)	(0.069)	(0.024)	(0.090)	(0.024)	(0.058)
TF		0.018		0.047*		0.002
		(0.042)		(0.026)		(0.020)
TW x TF		-0.023		0.026		-0.022
		(0.021)		(0.024)		(0.021)
Outcome - Stress						
TW	-0.014	0.046	-0.028	-0.220*	-0.005	-0.030
	(0.028)	(0.095)	(0.043)	(0.112)	(0.027)	(0.080)
TF		-0.076**		0.052		0.029
		(0.037)		(0.033)		(0.031)
TW x TF		-0.013		0.004		-0.008
		(0.037)		(0.033)		(0.035)
Outcome - Tired						
TW	-0.017	-0.042	-0.036	-0.444***	-0.109***	-0.201**
	(0.036)	(0.088)	(0.039)	(0.114)	(0.038)	(0.087)
TF		0.028		-0.020		0.009
		(0.053)		(0.039)		(0.033)
TW x TF		-0.009		0.017		0.016
		(0.030)		(0.056)		(0.029)
Set of Controls						
Activities		✓		✓		✓
Individuals		✓		✓		✓
Occupations		✓		✓		✓
Observations	6585	6585	4288	4288	9910	9910
Cluster	227	227	221	221	237	237

Source: Author's own calculations and illustrations based on ATUS 2010, 2012, 2013 and 2021; O*Net version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010.

Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.5: Estimation Results by Emotions - Non-labor activities (Men Sample)

	(1)	(2)	(3)	(4)	(5)	(6)
	Unpaid Work		**Leisure**		**Other**	
Outcome - Happy						
TW	-0.100**	0.129	-0.042	0.006	-0.055*	-0.068
	(0.039)	(0.120)	(0.045)	(0.120)	(0.030)	(0.073)
TF		0.016		0.064*		-0.042**
		(0.036)		(0.035)		(0.019)
TW x TF		-0.036		-0.031		-0.040
		(0.033)		(0.043)		(0.024)
Outcome - Meaningful						
TW	-0.125***	0.186	-0.089**	-0.279*	-0.149***	0.022
	(0.031)	(0.122)	(0.037)	(0.157)	(0.038)	(0.091)
TF		0.054		-0.021		-0.010
		(0.042)		(0.052)		(0.032)
TW x TF		-0.023		0.040		-0.007
		(0.034)		(0.044)		(0.032)
Outcome - Pain						
TW	-0.135***	-0.098	-0.075***	-0.134	-0.134***	0.098
	(0.030)	(0.082)	(0.027)	(0.123)	(0.018)	(0.064)
TF		-0.029		0.004		-0.019
		(0.037)		(0.022)		(0.034)
TW x TF		-0.038		-0.005		-0.020
		(0.024)		(0.033)		(0.021)
Outcome - Sad						
TW	-0.041*	-0.120	-0.016	0.032	-0.046*	0.163***
	(0.024)	(0.088)	(0.017)	(0.108)	(0.024)	(0.048)
TF		-0.020		-0.046*		-0.035
		(0.023)		(0.027)		(0.021)
TW x TF		-0.044**		0.012		0.005
		(0.022)		(0.023)		(0.022)
Outcome - Stress						
TW	0.058**	-0.001	0.057**	-0.095	0.070**	0.152
	(0.026)	(0.124)	(0.026)	(0.156)	(0.032)	(0.095)
TF		0.026		-0.036		-0.012
		(0.032)		(0.040)		(0.026)
TW x TF		-0.031		-0.012		-0.012
		(0.032)		(0.034)		(0.026)
Outcome - Tired						
TW	0.009	-0.105	-0.063*	-0.433***	-0.039	0.065
	(0.048)	(0.141)	(0.033)	(0.127)	(0.028)	(0.121)
TF		-0.080**		-0.051		-0.061
		(0.032)		(0.040)		(0.042)
TW x TF		0.029		0.021		0.005
		(0.037)		(0.042)		(0.032)
Set of Controls						
Activities		✓		✓		✓
Individuals		✓		✓		✓
Occupations		✓		✓		✓
Observations	4664	4664	4911	4911	10537	10537
Cluster	258	258	270	270	285	285

Source: Author's own calculations and illustrations based on ATUS 2010, 2012, 2013 and 2021; O*Net version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010.

Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.6: Main Estimation Results - Detailed Other Activities

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Women				**Men**			
	Eating & Drinking		**Traveling**		**Eating & Drinking**		**Traveling**	
Outcome - Net Affect								
TW	0.005	-0.016	-0.064*	0.030	-0.012	-0.111	-0.125***	-0.075
	(0.054)	(0.137)	(0.037)	(0.104)	(0.047)	(0.115)	(0.043)	(0.103)
TF		0.028		0.004		-0.042		-0.009
		(0.045)		(0.053)		(0.044)		(0.033)
TW x TF		-0.032		0.001		0.018		-0.022
		(0.036)		(0.047)		(0.057)		(0.039)
Outcome - Positive Affect								
TW	-0.050	-0.054	-0.106***	-0.084	-0.042	-0.102	-0.126***	0.033
	(0.034)	(0.081)	(0.033)	(0.074)	(0.040)	(0.104)	(0.033)	(0.089)
TF		0.002		0.035		-0.052		-0.031
		(0.030)		(0.035)		(0.036)		(0.023)
TW x TF		-0.011		-0.023		0.008		-0.025
		(0.025)		(0.034)		(0.044)		(0.033)
Outcome - Negative Affect								
TW	-0.055*	-0.038	-0.042*	-0.114*	-0.029*	0.009	-0.002	0.108**
	(0.030)	(0.081)	(0.022)	(0.059)	(0.018)	(0.055)	(0.020)	(0.051)
TF		-0.026		0.032		-0.010		-0.022
		(0.028)		(0.028)		(0.017)		(0.022)
TW x TF		0.022		-0.024		-0.010		-0.002
		(0.024)		(0.020)		(0.022)		(0.017)
Set of Controls								
Activities		✓		✓		✓		✓
Individuals		✓		✓		✓		✓
Occupations		✓		✓		✓		✓
Observations	3196	3196	5860	5860	3757	3757	6078	6078
Cluster	208	208	215	215	248	248	270	270

Source: ATUS 2010, 2012, 2013 and 2021; O*Net version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010, own calculations.
Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

D Sensitivity Checks

Table D.1: Additional Estimation Results - Mothers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Labor		**Unpaid Work**		**Leisure**		**Other**	
Outcome - Net Affect								
TW	-0.032	-0.352	-0.109***	-0.015	-0.067	-0.058	-0.056	0.206*
	(0.095)	(0.317)	(0.042)	(0.087)	(0.059)	(0.153)	(0.041)	(0.114)
TF		-0.212**		0.009		-0.075		-0.085*
		(0.084)		(0.048)		(0.059)		(0.046)
TW x TF		-0.175***		0.004		-0.115*		0.003
		(0.062)		(0.035)		(0.062)		(0.049)
Outcome - Positive Affect								
TW	-0.143*	-0.313	-0.124***	-0.116	-0.121**	-0.138	-0.135***	0.028
	(0.074)	(0.249)	(0.037)	(0.078)	(0.048)	(0.117)	(0.035)	(0.074)
TF		-0.073		0.044		-0.026		-0.039
		(0.060)		(0.033)		(0.042)		(0.027)
TW x TF		-0.124***		0.019		-0.100**		-0.017
		(0.045)		(0.027)		(0.046)		(0.034)
Outcome - Negative Affect								
TW	-0.110***	0.039	-0.015	-0.102*	-0.054**	-0.080	-0.079***	-0.178***
	(0.034)	(0.101)	(0.020)	(0.053)	(0.025)	(0.081)	(0.028)	(0.063)
TF		0.139***		0.035		0.049		0.046*
		(0.042)		(0.029)		(0.035)		(0.027)
TW x TF		0.051		0.015		0.015		-0.020
		(0.034)		(0.019)		(0.030)		(0.023)
Set of Controls								
Activities		✓		✓		✓		✓
Individuals		✓		✓		✓		✓
Occupations		✓		✓		✓		✓
Observations	810	810	3621	3621	1574	1574	4168	4168
Cluster	131	131	184	184	157	157	189	189

Source: ATUS 2010, 2012, 2013 and 2021; O*NET version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010, own calculations.

Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D.2: Additional Estimation Results - Fathers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Labor		**Unpaid Work**		**Leisure**		**Other**	
Outcome - Net Affect								
TW	-0.145*	0.187	-0.165***	-0.127	-0.025	-0.206	-0.129***	0.103
	(0.079)	(0.242)	(0.059)	(0.139)	(0.053)	(0.227)	(0.038)	(0.136)
TF		-0.078		0.085**		-0.024		-0.020
		(0.078)		(0.041)		(0.038)		(0.044)
TW x TF		-0.110*		-0.024		-0.073*		-0.053
		(0.063)		(0.046)		(0.040)		(0.041)
Outcome - Positive Affect								
TW	-0.113**	0.122	-0.116**	-0.040	-0.034	-0.135	-0.121***	0.044
	(0.055)	(0.156)	(0.053)	(0.129)	(0.043)	(0.125)	(0.032)	(0.109)
TF		-0.075*		0.044		-0.032		-0.023
		(0.045)		(0.037)		(0.032)		(0.036)
TW x TF		-0.116***		0.014		-0.059*		-0.028
		(0.043)		(0.040)		(0.034)		(0.030)
Outcome - Negative Affect								
TW	0.032	-0.065	0.049***	0.087	-0.009	0.070	0.009	-0.059
	(0.032)	(0.149)	(0.016)	(0.059)	(0.021)	(0.168)	(0.019)	(0.083)
TF		0.002		-0.041**		-0.009		-0.002
		(0.041)		(0.017)		(0.034)		(0.020)
TW x TF		-0.006		0.038**		0.014		0.025
		(0.037)		(0.019)		(0.024)		(0.021)
Set of Controls								
Activities		✓		✓		✓		✓
Individuals		✓		✓		✓		✓
Occupations		✓		✓		✓		✓
Observations	1067	1067	2396	2396	1875	1875	4184	4184
Cluster	159	159	213	213	197	197	232	232

Source: ATUS 2010, 2012, 2013 and 2021; O*NET version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010, own calculations.

Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D.3: Additional Estimation Results - Subsample Analysis Pre-Post Covid (Full Sample, Outcome: Net Affect)

	(1)	(2)	(3)	(4)	(5)	(6)
		Women			**Men**	
	All	**Pre Covid**	**Post Covid**	**All**	**Pre Covid**	**Post Covid**
	10 - 21	10 - 13	21	10 - 21	10 - 13	21
Labor						
Teleworkability	-0.568***	-0.657***	-0.361	-0.149	-0.108	-1.030*
	(0.185)	(0.230)	(0.310)	(0.173)	(0.182)	(0.595)
Time Flexibility	0.009	0.025	-0.299	-0.025	-0.082	0.089
	(0.057)	(0.086)	(0.212)	(0.047)	(0.051)	(0.126)
TF x TW	-0.085	-0.135**	-0.011	-0.053	-0.018	0.024
	(0.054)	(0.061)	(0.143)	(0.053)	(0.053)	(0.167)
Observations	2089	1848	241	2674	2301	373
Cluster	185.000	180.000	52.000	232.000	223.000	60.000
Unpaid Work						
TW	-0.066	-0.168	0.754***	0.214	0.331**	0.222
	(0.096)	(0.104)	(0.177)	(0.148)	(0.153)	(0.256)
TF	0.067	0.059	0.099	0.054	0.096***	0.014
	(0.049)	(0.046)	(0.154)	(0.033)	(0.033)	(0.073)
TF x TW	0.031	-0.038	0.154	-0.018	-0.031	-0.069
	(0.040)	(0.035)	(0.118)	(0.034)	(0.044)	(0.086)
Observations	6585	5863	722	4664	4043	621
Cluster	227	220	75	258	253	77
Leisure						
TW	0.143	0.018	0.410*	-0.012	0.103	-0.184
	(0.104)	(0.104)	(0.209)	(0.187)	(0.203)	(0.199)
TF	-0.066*	-0.072	-0.001	0.055	0.022	0.086
	(0.039)	(0.047)	(0.151)	(0.054)	(0.059)	(0.071)
TF x TW	-0.079**	-0.044	-0.059	-0.001	-0.028	0.108
	(0.037)	(0.040)	(0.129)	(0.033)	(0.040)	(0.071)
Observations	4288	3787	501	4911	4231	680
Cluster	221	213	69	270	261	85
Other						
TW	0.049	0.067	0.082	-0.118	-0.175*	0.173
	(0.078)	(0.095)	(0.267)	(0.080)	(0.089)	(0.310)
TF	0.009	0.026	-0.196**	0.000	0.015	0.008
	(0.040)	(0.040)	(0.088)	(0.034)	(0.043)	(0.065)
TF x TW	-0.027	-0.045	-0.092	-0.023	0.012	-0.100
	(0.040)	(0.039)	(0.078)	(0.032)	(0.036)	(0.078)
Observations	9910	9012	898	10537	9397	1140
Cluster	237	237	72	285	280	85
Set of Controls						
Activities	✓	✓	✓	✓	✓	✓
Individuals	✓	✓	✓	✓	✓	✓
Occupations	✓	✓	✓	✓	✓	✓

Source: ATUS 2010, 2012, 2013 and 2021; O*Net version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010, own calculations.
Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D.4: Additional Estimation Results - Occupation Fixed-Effects (Full Sample, Outcome: Net Affect)

	(1)	(2)	(3)	(4)
	Women		**Men**	
Sample	All	2010 - 2013	All	2010 - 2013
Labor				
TW	0.001	-1.001*	-0.015	0.719
	(0.382)	(0.595)	(0.392)	(0.607)
TF	-0.273*	0.038	0.069	0.376*
	(0.153)	(0.239)	(0.142)	(0.197)
TF x TW	0.004	-0.122	-0.022	0.014
	(0.126)	(0.159)	(0.111)	(0.135)
Observations	2089	1848	2674	2301
Unpaid Work				
TW	0.372	-0.698*	-0.026	0.292
	(0.258)	(0.408)	(0.281)	(0.463)
TF	0.047	-0.120	0.094	0.019
	(0.096)	(0.144)	(0.089)	(0.145)
TF x TW	0.122*	0.140	0.003	-0.064
	(0.066)	(0.094)	(0.078)	(0.093)
Observations	6587	5865	4667	4045
Leisure				
TW	-0.041	0.248	0.309	1.146**
	(0.261)	(0.458)	(0.308)	(0.480)
TF	-0.006	-0.128	0.095	0.171
	(0.100)	(0.167)	(0.094)	(0.153)
TF x TW	-0.221**	-0.022	0.157*	0.068
	(0.090)	(0.123)	(0.081)	(0.103)
Observations	4289	3788	4912	4232
Other				
TW	-0.251***	-0.204*	0.127*	0.183*
	(0.078)	(0.119)	(0.066)	(0.101)
TF	0.019	-0.287	-0.127	0.214
	(0.193)	(0.274)	(0.204)	(0.293)
TF x TW	0.045	-0.034	0.022	-0.011
	(0.062)	(0.081)	(0.055)	(0.065)
Observations	9911	9013	10539	9399
Set of Controls				
Activities	✓	✓	✓	✓
Individuals	✓	✓	✓	✓
Occup. Controls	✓		✓	
Occupation FE		✓		✓

Source: ATUS 2010, 2012, 2013 and 2021; O*Net version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010, own calculations.

Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D.5: Additional Estimation Results - Endogenous Controls (Full Sample, Outcome: Net Affect)

	(1)	(2)	(3)	(4)	(5	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Women						Men					
	Labor		Unpaid Work		Leisure		Labor		Unpaid Work		Leisure	
TW	-0.527***	-0.568***	-0.094	-0.066	0.094	0.143	-0.113	-0.149	0.176	0.214	0.002	-0.012
	(0.180)	(0.185)	(0.097)	(0.096)	(0.105)	(0.104)	(0.177)	(0.173)	(0.143)	(0.148)	(0.192)	(0.187)
TF	0.036	0.009	0.069	0.067	-0.048	-0.066*	-0.012	-0.025	0.050	0.054	0.076	0.055
	(0.060)	(0.057)	(0.046)	(0.049)	(0.038)	(0.039)	(0.049)	(0.047)	(0.032)	(0.033)	(0.057)	(0.054)
TW x TF	-0.096	-0.085	0.028	0.031	-0.073**	-0.079**	-0.070	-0.053	-0.028	-0.018	-0.001	-0.001
	(0.060)	(0.054)	(0.036)	(0.040)	(0.035)	(0.037)	(0.050)	(0.053)	(0.034)	(0.034)	(0.036)	(0.033)
# people present		-0.040		0.235***		0.342***		0.025		0.272***		0.302***
		(0.046)		(0.028)		(0.029)		(0.039)		(0.032)		(0.039)
Day of the Week (Ref.: Sunday)												
Monday		0.038		0.143*		-0.114		-0.330**		0.129		-0.216
		(0.165)		(0.082)		(0.137)		(0.158)		(0.105)		(0.133)
Tuesday		0.136		0.016		0.074		0.004		-0.238		-0.025
		(0.176)		(0.099)		(0.152)		(0.135)		(0.166)		(0.096)
Wednesday		-0.020		0.045		-0.139		-0.172		-0.350***		-0.053
		(0.178)		(0.139)		(0.142)		(0.143)		(0.090)		(0.110)
Thursday		0.243		-0.070		0.084		-0.278*		-0.175		-0.172
		(0.179)		(0.148)		(0.132)		(0.161)		(0.112)		(0.115)
Friday		-0.012		0.060		0.209		-0.033		-0.049		-0.080
		(0.196)		(0.139)		(0.128)		(0.176)		(0.103)		(0.130)
Saturday		-0.066		0.022		0.213**		0.144		-0.065		0.073
		(0.180)		(0.078)		(0.084)		(0.158)		(0.071)		(0.078)
Time of the Day (Ref: Early Morning (6-9am))												
Morning (9am-1pm)		-0.191		-0.083		-0.028		-0.285***		-0.128		-0.242**
		(0.133)		(0.103)		(0.129)		(0.108)		(0.133)		(0.095)
Afternoon (1-6pm)		-0.659***		-0.306***		-0.013		-0.355***		-0.206***		-0.213***
		(0.121)		(0.091)		(0.101)		(0.111)		(0.077)		(0.081)
Evening (6-10pm)		-0.998***		-0.428***		-0.257**		-0.944***		-0.323***		-0.346***
		(0.224)		(0.074)		(0.128)		(0.144)		(0.069)		(0.071)
Night (10pm-6am)		-0.857***		-0.296**		-0.673***		-0.416**		-0.322***		-0.582***
		(0.226)		(0.115)		(0.171)		(0.200)		(0.122)		(0.135)
Duration (in hours)		-0.053**		0.034		0.003		-0.050***		0.046*		0.045**
		(0.023)		(0.031)		(0.027)		(0.018)		(0.027)		(0.023)
Observations	2089	2089	6585	6585	4288	4288	2674	2674	4664	4664	4911	4911
Cluster	185	185	227	227	221	221	232	232	258	258	270	270
Set of Controls												
Individuals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Occup. Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Source: ATUS 2010, 2012, 2013 and 2021; O*Net version 18.1 - 29.0; BLS Labor Statistics 2010, 2012 2013; GSS 2010, own calculations.

Notes: Observations are weighted with survey weights for the WB Module. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.