Gender Gaps in Time Use by Age Groups in Ten Industrialized Countries, 2005-2015

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Abstract

This study uses largescale cross-national time-diary data from the Multinational Time Use Study (MTUS) (N = 201,972) covering the period from 2005 to 2015 to examine gender differences in time use by age groups. The study compares ten industrialized countries across Asia, Europe, and North America. In all ten countries, gender differences in time use are smaller in personal care, sleeping and meals, followed by leisure time (including screen-based leisure and active leisure), and largest in housework, care work and paid work activities. Gender disparities in time use are higher in South Korea, Hungary, and Italy, followed closely by Spain, with moderate gender gaps in Western European countries like France and Netherlands, and lowest differences in Finland and Anglo-Saxon countries, including Canada, US, and the UK. Gender differences in housework and caring time increase from adolescence (10-17 years) to early adulthood (18-29 years), showing strong gender gaps in early/middle adulthood (30-44 years), but narrow again during late adulthood (65 years or older). However, the age gradient in care work and housework is most pronounced in Italy and South Korea, being less prominent in Canada and Finland. Gender gaps in paid work are larger in early/middle adulthood (30-44) and middle/late adulthood (45-64), with strongest age gradients observed in the Netherlands and weaker gradients for the US. Gender differences in active leisure increase by age, especially in Southern European countries, while screen-based leisure shows more stable gender gaps by age groups across different countries. Overall, this study shows that age and gender intersect strongly in affecting time-use patterns, but also that the national context plays an important role in shaping gender-age interactions in time use allocation.

Keywords: Age; Cross-national; Gender; Life course; Time use

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INTRODUCTION

The last decades have seen remarkable progress towards gender equality in how men and women spend time in multiple activities. Since the 1970s women have entered massively into the labor force, while men have significantly increased their participation in domestic tasks, especially in childcare activities [1]. However, research reveals that women remain more actively involved than men in housework and childcare, and less active in employment, leading to women's disadvantages in income, health, and stress levels [2,3]. Previous studies found that gender gaps in time spent on paid work and domestic chores augment during early adulthood and early/middle adulthood, which are life stages when partnership and parenthood transitions are most common [4-9]. While gender differences in time use across parenthood transitions have been well documented, the role of national contexts in shaping gender differences in daily activities across the whole life course (e.g., by age groups) remains poorly understood.

To our knowledge, only one study has systematically examined gender gaps in time use across age groups in cross-national perspective [10]. Using 1998-2004 time-diary data from individuals aged 18 or older in some selected Western European countries and the United States, Anxo et al. (2011) [10] found that countries with more active gender egalitarian policies and norms (i.e. Sweden) are more effective at reducing motherhood penalties in (un)paid work time during early and mid-adulthood, compared to countries with more gender traditional contexts (i.e., Italy). This study implies that national contexts can play a central role in shaping gender-age interactions associated with time-use patterns. While the mentioned study makes a relevant contribution, it only includes data from Western Europe and the US and uses surveys restricted to the late 1990s and early 2000s and excluding non-adults (i.e., children, teenagers) from the analyses. Also, the study by Anxo and colleagues [10] focuses only on three broad activities (employment, domestic work, and leisure in general), missing a rich variety of important activities to understand individuals' well-being, including not only a differentiation between housework and care work, but also other key activities for individuals' well-being and health like exercising, sleeping, eating or intellectual activities. These gaps motivate new research using more recent time-use data, adding previously excluded countries and regions, and focusing on multiple activities from childhood to late adulthood.

Our study contributes to the literature with a new cross-national analysis of gender differences in time-use allocation across age groups. To do so, we examine high-quality harmonized time-diary data from 2005 to 2015 across ten industrialized countries encompassing Asia, Europe, and North America. Drawing on the gender regimes literature, we hold that countries with different cultural, ideological and policy characteristics create different conditions for the development of power relations between men and women [11]¹ We argue that countries with different gender regime types may differ in the relative opportunities that society offers to men and women to use their time across age groups. Countries with stronger gender egalitarian policies and norms exhibit high levels of gender symmetry in activities like paid work, domestic labor, and leisure [5, 13-18]. Additionally, gender differences in time use may be less subject to age-specific stages from early to late adulthood in more gender egalitarian countries (i.e. Nordic countries like Finland; Anglo-Saxon countries like Canada), where family policies and gender norms provide support to both men and women to engage in similar time-use arrangements in those ages with high family and caring demands, namely early/middle adulthood, when parenthood transitions are more extended [15-16]. By contrast, industrialized regions that are more gender unequal in their policies and norms, such as Southern Europe (i.e., Italy), East-Central Europe (i.e. Hungary) and East Asia (i.e., South Korea), may show particularly pervasive gender disparities in paid work, leisure or domestic work during early/middle adulthood, as these countries often have weaker institutions and social support to promote gender equal time-use arrangements targeting this demographic group.

Our cross-national study bridges the sociological and demographic literatures on time-use and life-course by analyzing gender differences in individuals' time use across age groups that range from childhood to late adulthood. Drawing on the life course perspective, which emphasizes the importance of time, context, process and meaning in individuals' development over the years [19], we analyze gender disparities in time use across five relevant age groups that capture distinct life-course stages in individuals' biographies which have been similarly applied in the human development and demographic literatures [20, 21]: (1)

¹ For a more recent critical discussion about gender regimes see [12].

adolescence (ages 10-17); (2) early adulthood (ages 18-29); (3) early/middle adulthood (ages 30-44); (4) middle/late adulthood (ages 45-64); (5) late adulthood (aged 65 or older). Examining in what national contexts men and women adopt more (or less) similar time-use arrangement by ages helps to better understand the individual and societal dynamics of gender differences in lifestyles and daily routines across the life span. For reasons of space and focus, our study does not concentrate on other important indicators of the life course, such as being a parent versus being childless, living with parents versus having left home already and being partnered compared to being single. However, we conduct analyses that intersect age and gender which control for important markers of the life course, such as family structure and number of children. Age is a crucial life-course marker to study individuals' time-use allocation. Age is a measure that allows us to assess how a universally comparable biological marker relates to different gendered patterns in time use allocation, but also whether these gender-age interactions are more or less similar or stable depending on the national context.

Our study makes three main contributions to the international literature on gender differences in time use by considering both the *absolute* (total time) and *relative* (percentages) gender gaps across all countries of study. First, unlike previous studies, we use the most recent data available from the Multinational Time Use study (MTUS) between 2005 and 2015 for ten countries, encompassing regions that have been omitted in previous comparative literature, such as East-Central Europe (i.e., Hungary), and East Asia (i.e., South Korea), besides Western Europe, North America, and Southern Europe. Second, unlike previous studies, we examine time-use patterns from adolescence (10-17 years old) to old age (65 years old and older). Third, unlike previous studies, we not only study paid work, housework, care work and leisure in general, but also focus on other key markers of men's and women's health and well-being over their life course: sleeping, personal care, eating and studying. Previous research has found that lacking enough sleeping time is associated with poorer health outcomes and mental well-being (22-26). Studies also found that time spent in physical and active leisure helps to prevent pathologies and mental health problems, while more sedentary leisure –particularly high levels of screen-based leisure– has been found to be associated with physical and mental health problems, especially among the younger cohorts (24, 27,

28). Overall, our study adds to the scarce literature on gender gaps in time use across age groups by adding a cross-national approach on multiple activities with different well-being implications.

Globally, this study demonstrates the importance of national context in shaping age-gender interactions that define individuals' time-use patterns over the life course. Our study represents a clear example of how using precise time-diary data provides unique understandings of the role of societal contexts in shaping how age impacts the way men and women engage in activities that are essential to understand differences in health, well-being or income across countries. These time-use differences are crucial to inform debates on gender inequalities across policy and cultural contexts.

DATA AND METHODS

We use data from the Multinational Time Use Study (MTUS), the largest openly accessible nationally representative harmonized time diary survey database that provides data comparable across time and space [29]. Time-diary data are considered the most precise and robust statistical sources available to measure individuals' behavior [e.g., 30, 18]. Time-use diary surveys provide nationally representative samples of comprehensive, continuously-registered, records about the activities of daily life [31]. The data were obtained from the MTUS-X extract system (www.mtusdata.org), allowing us to personalize the selection of samples and surveys [32]. We obtained large diary data collected between 2005 and 2015 from ten industrialized countries representing different gender regimes (N = 201,972). Appendix 1 shows a summary of our sample. The selection of countries is both strategic and practical. From a strategic point of view, we are interested in countries that have different social, cultural, and policy environments to explore the macro-level determinants of gender differences in time use. From a practical point of view, we are limited by data access. Not all countries that carried out time use surveys are available in the MTUS and access to multiple surveys is either restricted or challenging in terms of data harmonization. Drawing on previous cross-national frameworks on gender attitudes and work-family policies [e.g., 13, 17, 18], our ten countries can be integrated into six clusters:

- *Anglo-Saxon*: Canada (2010), United Kingdom (2014), United States (2010)
- *East Asia*: South Korea (2009)
- *East-Central Europe*: Hungary (2009)

- *Nordic Europe*: Finland (2009)
- *Southern Europe*: Spain (2009), Italy (2008)
- *Western Europe*: France (2009), Netherlands (2005)

We created twelve groups of activities across a random 24-hours day from the time diaries, adding the average number of daily minutes devoted to each activity. The aggregated variables are created according to the main activity reported in the diary. The list of activities and the main activities and codes considered in each group are as follows²:

- Sleeping (codes 2-3): Sleeping, naps, imputed sleep.
- Personal care (codes 1 and 4): Washing up, dress, care for self, imputed personal.
- Meals (codes 5-6): Meals, snacks.
- Paid work (codes 7-9, 11-13): paid work at main or second job, travel as part of work, work breaks.
- Study (codes 15-17): regular schooling, homework, leisure or other education or training.
- Housework (codes 18-27): food preparation, cooking, setting the table, washing dishes, cleaning, laundry, ironing, clothing repairs, maintaining home or vehicle purchase goods, consuming personal care services, pet care.
- Care for others (codes 28-32): physical and medical childcare, teach and help child with homework, reading to, talking or playing with child, supervise, accompany a child, adult care.³
- Active leisure (codes 42-47): general sport or exercise, walking or cycling, other outside recreation, walking with pets.
- Screen-based leisure (codes 59-61): watch TV, video or dvd, computer games, e-mail, surfing the internet or computing.
- Other Leisure (codes 33-41 and 48-58)⁴: voluntary activities, worship and religion, general out-of-home leisure, attend sports events, cinema theatre, opera, concerts, other public events, restaurant, cafe, bar, pub, party, social event, gambling, , receive or visit friends, conversations, games, general indoor leisure, art or music, correspondence, knit, crafts or hobbies, relax, think, read, listen to music or radio,
- Travel (codes 62-68): travel to/from work, voluntary travel, child/adult care travel, other travel
- Other activities (code 10, 14, 69)

² We have excluded time in travel and other activities from the more detailed analyses of our study. There were not significant differences in these activities across countries throughout a full random day of 24 hours (1440 minutes).

³ We include all types of activities of care for others within one category. We acknowledge that each type of care (e.g., care for adults versus care for children) has a different nature and implications for the person who does the activity. We decided to integrate all care as a single activity for reasons of space, but also because the average minutes allocated to caring for adults and the proportion of respondents who engaged in this activity is low.

⁴ Other leisure includes social and cultural activities as well as those leisure activities that are not specified enough to be classified in the more detail leisure categories.

Our analyses focus on five age groups that, as explained above, generally correspond to meaningful stages of the life course across industrialized countries, which have been previously associated with gendered life-course stages over the life course:

- Age: 10-17⁵, 18-29, 30-44, 45-64, 65 and older

We present general average measures by age, gender and country⁶. First, we show the general average time (daily minutes) allocated to each activity over the day (1440 minutes). Second, we show the average time for each activity by country and age group. Third, we explore gender gaps in each activity of interest by using the following formula of time-use gender ratio (33-34):

$$\text{Gender relative ratio} = \frac{\text{Men's Time} - \text{Women's Time}}{\text{Men's Time} + \text{Women's Time}}$$

The time-use gender ratio shows differences between men and women in time use. It goes from -1 (when women do all time in the specific activity) to 1 (when men do all time). Positive values mean that men spend more time in the activity, with negative values indicating that women spend more time in the activity. The value 0 indicates no gender differences in time use. Averages correspond to the average by week including weekends and weekdays. To compute averages, we have used the proposed weights (PROPWT) provided by the MTUS to rescale the population and day of the week. Applying weights is necessary in time use surveys when weekdays and weekend diaries are integrated within the same analyses. Weights correct for the overrepresentation of weekends respondents in some surveys and imbalances in the population's structure by age, gender and employment status. There are not missing values in the

⁵ For Canada and the United States, the 10-17 age group includes the ages of 15-17, as there are no data available for younger individuals in these two countries. For the rest of countries, we add all ages from 10 to 17 years.

⁶ In additional analyses (not shown) we have computed multivariate OLS models controlled for basic demographics (i.e. education, employment status). Results were generally in line with our main findings. We decided to take out these controls from the model, which partly condition our estimations. For example, countries differ in female employment policies, which affect gender differences in employment status, and this in turn contributes to explain the gender gap in time use).

harmonized variables used in our analysis, although there might be some imputation in the procedures to create the harmonized files that the MTUS-X provides.

Finally, we conduct multivariate analyses to estimate gender differences in the time spent on each activity within country and age groups. Using Ordinary Least Squares (OLS) regression, we run 500 models (10 activities * 10 countries * 5 groups of age = 500 regressions) so that each coefficient (500 in total) presents the differences between men and women in estimating activity X within the same country and age group. We are not running Compositional Data Analysis, as we are not combining multiple activities within the same statistical model, but rather estimate each activity separately (35-39). Previous studies show that OLS regressions are robust estimation techniques for cross-sectional observational time-diary data and a better alternative than Tobit regressions (40). In these final analyses, we start by presenting the coefficient and significance test of gender on time use for each group and country, after controlling for day of the week. Subsequently, we reproduce the analyses of the effect of gender on time use, adjusting for socioeconomic and demographic factors in each model. We are limited by the harmonized variables in the original dataset, especially for the group 10-17, but we can use the following sociodemographic controls:

- Educational attainment: respondent is under 18 or value is missing, less than secondary, completed secondary, above secondary
- Employment status: employed or not employed
- Couple status: in union or not
- Children status: respondent is under 18, without coresident children in the household, coresident children under 5 years old in the household, coresident children 5-17 household.⁷

Finally, we run several tests to check the necessary assumptions to conduct OLS regressions, including checks of homoscedasticity and multicollinearity in all OLS regressions. Analyses suggest that parameters to run OLS regressions are correct. For all models obtained, we run tests in Stata, using vif and imtest commands. Moreover, the number of observations in all regressions is large enough to assume normality in the data (see annex 1 to check our sample sizes).

⁷ Note that we refer to coresident children who may not be the respondent's children.

RESULTS

Description of Gender Differences in Time Use in Ten Countries

Figure 1 presents the average daily minutes in each activity by country, separately for men and women. The total time is 1440 minutes, that is 24 hours. Estimates correspond to the average time of the overall population in each country. We only report differences for our ten activities of study, without discussing differences in travelling and ‘others.’

Figure 1 shows that men spent more time than women on paid work and also, even with smaller gender differences, on leisure activities, particularly in relation to active and screen-based leisure. Women allocated more time to housework, caring and –to a lesser extent– personal care. Patterns in sleeping time, study and meals were similar by gender. More important, the magnitude of gender gaps in time use differed remarkably across countries.

FIGURE 1 ABOUT HERE

TABLE 1 ABOUT HERE

TABLE 2 ABOUT HERE

In Figure 1, we observe small gender differences in *sleeping time*. Sleeping takes between 8 and 9 hours, with a maximum of 8 hours and 45 minutes for women in Italy (one minute more than Spanish men and US women) and a minimum of 7 hours and 54 minutes for both genders in South Korea. Time in *personal care* differed remarkably across countries, ranging from 79 minutes for Hungarian men (75 for women) to 33 minutes for Canadian men (46 for women). Gender differences in personal care seem slightly higher in Anglo-Saxon countries and Finland (women spend around 1.4 and 1.3 times more than men, respectively) than in the other countries. For *meals*, French, Spaniards, and Italians spent the highest amount of time (about 2 hours 15 minutes in France, 1 hours 45 minutes in Italy and 1 hour and 40 minutes in Spain), and Americans, Canadians, and the Dutch the least. However, gender differences in eating time were generally small in all countries.

Figure 1 shows clear gender gaps in paid work time and domestic work across countries. For *paid work*, the most active men were South Koreans (253 minutes) and the least active ones were the Finnish (166 minutes). For women, Americans and Canadians were the most involved in paid work, with 165 and 161 minutes respectively, and Italians the least (95 minutes). Finland, France, Canada, and US had the lowest gender gaps in employment activities, and Italy, Spain and South Korea showed the largest paid work gender gaps.

As for *housework*, men in South Korea (31 minutes) were the least active and men in France (118 minutes) and Canada (115 minutes) the most active (see Figure 1). For women, the Italian spent the highest amount of time in housework (226 minutes) and South Koreans and Americans the lowest (155 minutes and 152 minutes, respectively). Gender differences in housework were largest in Southern Europe, Hungary, and South Korea and lowest in Anglo-Saxon countries and Finland. Regarding *care time*, American women showed the highest average time, whereas South Korean presented the lowest involvement in care work (10 minutes). Gender gaps in time allocated to caring activities were highest in South Korea and smallest in Finland.

For *leisure* activities, we observed the highest averages of time for screen-based activities and the lowest in active leisure. For screen-based leisure, the highest averages were observed among males in UK (199 minutes) followed closely by males in Finland, Hungary and the US (between 190 and 188 all). Among females, the US shows the highest average minutes allocated to screen-based activities (163 minutes). Time on screen-based leisure is lowest among the Dutch (128 minutes for males and 98 minutes for females) (see Figure 1). For active leisure we found the highest averages in Spain (69 minutes for males and 44 for females, respectively) and the lowest among Hungarians (21 minutes for males and 11 for females). While gender differences in screen-based time were largest in Finland, Netherlands and the UK (and lowest in South Korea and the US), gender gaps in active leisure were largest in the US (and smallest in Finland).

Study time showed values close to zero, as most adults did not engage in these activities. South Korea was by far where people spent more time of study (1 hour and 30 minutes for men; 1 hour and 21

minutes for women). The lowest means of study time were found for France and the United States, with a minimum of 13 minutes for French men.

Unadjusted Relative Gender Gaps in Time Use by Age Groups and Countries

Figure 2 presents the average time spent by men and women in each activity by age groups across countries. While the direction of patterns by age groups were quite similar across all ten countries, the magnitude of these gendered gaps differed cross-nationally. In Table A2 we present the percentage of people who have participated in each activity by age, gender and country. There are some activities such as *sleeping*, *personal care* and *meals* for which the average time was generally flat by age and gender, even if time on meals tended to increase for the older demographic groups (i.e., 45-64; 65 or older). For *studying*, not surprisingly, the highest averages appeared in the 10-17 age group, followed by the 18-29 group, while afterward the average study time was almost zero for both men and women. Participation rate in studying activities in adult population was very low and, as a result, the average was low too, as visible in Table A2. As mentioned, South Korea was an outlier in study time, with very high average minutes among both boys and girls. Time in personal care differs between countries, as mentioned already, but we observe an interesting stability within countries when comparing personal care across age groups.

FIGURE 2 & TABLE 3 ABOUT HERE

For *housework*, women spent more time than men at all ages. For men, housework time increased with age (see Figure 2). For women, housework augmented up to middle adulthood, and then the pattern differed cross-nationally. In Southern Europe and South Korea, with more gender traditional norms, women's housework increased until the ages of 45-64 and decreased for the elderly. In Anglo-Saxon and Western European countries, women's housework time moderately increased for the elderly. Hungary exhibited a certain stabilization of housework time in old age (45-64; 65+).

For *paid work*, we found an increase of time until the age group 30-44, a slight decrease in the 45-64 age group, and more pronounced declines among the group aged 65 and older (see Figure 2). For men,

this pattern was common everywhere. Yet, in South Korea, a long-hours working regime, the average of paid work for the group of 65+ was above 2 hours, and in Hungary 1 hour and 20 minutes. In the US and Canada, where retirement is not strongly supported by the welfare state, men aged 65 or older spent 53 and 45 minutes in paid work, respectively. By contrast, in EU countries where people retire early, such as Spain, France and Finland, men in the eldest group spent less than 15 minutes in paid work. For women, we found important cross-national variations in women's paid work across age groups. In some countries, women's paid work for the 30-44 and 45-64 age groups were similar or even higher for the older group, as in South Korea, Finland and Anglo-Saxon countries. In the Netherlands, women aged 18-29 were the most active in paid work (186 minutes, one minute more than US women). However, Dutch women were the least active in paid work across all ten countries within the 30-44 age group (163 minutes). This pattern shows the institutionalization of short part-time employment among Dutch women in this age group.

For screen-based *leisure*, the age progression in time use showed a U-shape for both men and women, with a reduction of time for the 30-44 age group and largest amounts of time for the youngest and eldest groups (see Figure 2). The highest amounts of screen-based time were globally found in the group of age 65 and older, especially in the US. For active leisure, time-use patterns differed across countries. In the Mediterranean countries, averages were quite constant in both the youngest and middle-age groups and increased among older groups. In Anglo-Saxon countries, averages decreased for the adult age groups and went up among the late-adulthood groups, but not as much as in Mediterranean countries. South Korea shows the lowest averages for active leisure among the youngest groups, with a subsequent increase for the older groups, while Hungary shows the lowest averages across all age groups. Men spent more time than women in both active leisure and screen-based leisure in all countries and age groups.

Finally, regarding *caring activities*, the general pattern showed an inverted U-shape, but especially so among women (see Figure 2). The age group 30-44 was the most active in care activities in all countries. For the US, Women in the group 18-29 were very active in caring activities with an average of 80 minutes, rising to almost a hundred in the group 30-44. Men in Italy and South Korea remained little involved in care work, even during the 30-44 age groups, when care needs are highest. For the eldest group (65 or

older), both Spanish men and women were the most active in care work, with men and women in Anglo-Saxon countries being the least involved in these activities (only 4 minutes for both genders).

Unadjusted Relative Gender Gaps in Time Use by Age Groups

Figure 3 shows the relative gender gaps in time use by activity and age across countries. We show a gender ratio indicator that ranges from -1 (women did all the time in the activity) to +1 (men did all the time in the activity). Relative gender gaps were strongest for domestic work, paid work and, to a lesser extent, leisure. For *screen-based leisure*, the gender gap indicator was almost flat across age groups, with men spending more time across the different groups of age. Gender gaps in active leisure were also positive and higher for children and the older population groups.

FIGURE 3 & TABLE 4 ABOUT HERE

In the case of *paid work*, relative time-use gender gaps differed across ages and countries (see Figure 3). Gender gaps were largest and more different cross-nationally within the extreme age groups (10-17 and 65 and older). Yet, these results need to be taken with caution, as very few people engaged in paid work at these opposite groups of age. Gender gaps in paid work time were flatter in the age groups between 18 and 64, except for Italy and the Netherlands where the indicator took higher values, with men engaging disproportionately in paid work (around +0.35).

For *housework*, changes across age groups were most evident in South Korea, Southern Europe (especially Italy) and Hungary (see Figure 3). In all groups, women did more housework, regardless of age. During early and middle adulthood (i.e. ages 30-44) the indicator took values that got closer to -1, that is women doing more housework, particularly in Italy and South Korea. Finland and Canada showed lower relative gender gaps in housework time. As for *caring work*, the higher gender gaps corresponded to South Korea across most age groups, with gaps ranging between -0.75 and -0.25 among adults. Gaps for the 10-17 age group seemed sensitive to low participation rates, meaning that results for the youngest group need to be taken with caution.

Finally, for *personal care*, women did more of it across countries and ages (negative values), with cross-country differences increasing at the age of 65 or older, showing gaps in favor of women in Canada and the US (around -0.1), but interestingly in favor of men in Hungary (+0.08) (see Figure 3). Differences in *study* time were largest for the older groups, even if study time was rare for the elderly. Interestingly, for the 30-44 age group, the US presented the largest gender gaps in study time (women did more of it) and for the 65 or older group (but here men did more of it). Gender gaps in *sleeping* and *meals* remained around 0 in all ten countries.

Regression Analyses

Figure 4 presents the results of the regression analyses. In Panel A, we present the statistical association between gender and time use for our ten activities of study and with separated models for each group age and country, without adding demographic and socioeconomic controls, and only controlling for day of the week. In Panel B, we present the same analyses, adding also a control of day of the week, but in this case we control for multiple socioeconomic and demographic variables, including education, employment status, union status and number of children at home. Combinations in grey denote the coefficients that are not significant at 95% level of significance. All coefficients and levels of statistical significance are presented in Table A3 and Table A4.

FIGURE 4 ABOUT HERE

Figure 4 shows clear differences in the intersection of age, gender and country in predicting variations in time use. Panel A shows a very similar picture to the one presented in Figure 2, showing clear gendered patterns across age groups in housework, work and leisure, where the gender coefficients are statistically significant ($p < 0.05$) in most countries and age groups, but with some exceptions where gender differences are not statistically significant, including the ages 10-17 for paid work (Canada, Finland, South Korea, Spain, UK, US) and for leisure the Netherlands (ages 45-64 and 65 and older) and France (ages 10-17). For housework, the gender gap is statistically significant ($p < 0.05$) in all countries and age groups, but the gaps

are stronger in Italy, South Korea and Spain for the age groups 30-44, 45-64 and 65 and older, with the most gender unequal division of housework being observed among Italians for the age group 45-64. Higher gender gaps in paid work are in population in the group of age 30-44, whereas Netherlands and South Korea present the higher coefficients. For screen-based leisure, we observe the highest gender gaps in the extreme age groups (10-17 and 65 and over), while the US was the country with larger gender gaps. For active leisure, the highest gender gaps were found in the group 65 and older, while Spain and Italy were the countries where these gaps were largest.

Panel B of Figure 4 shows that, when socioeconomic and demographic controls are added, the picture of gender differences in time use by age groups shows only some minor changes. The inclusion of controls increases the magnitude of the gender gap in housework, particularly for the population aged 45 and older. On the contrary, gender gaps in paid work generally decrease after adjusting for demographic factors, especially for the age group 30-44. The 30-44 age group includes a high proportion of population living in union with children, and so these demographic controls globally attenuate the relationship between gender and time spent in employment. Regarding leisure, the inclusion of controls leads to a certain increase in the strength of gender gaps in all ages for both active and screen-based leisure. However, we do not observe important changes in the level of significance for these coefficients. Largest changes are observed in screen-based leisure for the older group, with an increase of gender-gaps in all countries. In the case of active leisure, gender gaps in time use increased for the group 45-64 in all countries.

Overall, despite some minor differences between Panel A and Panel B in Figure 4, adding control variables does not generally alter the relation between gender and age in individuals' time use across countries.

Additional Analyses

We conducted additional analyses that control for retirement in the older groups of study. We did this by differentiating in the analyses between unemployed, employed, and retired people for our two older groups: '45 to 64 years old' and '65 years old or older'. First, Figure A1 adds the category retirement compared to unemployed within our multivariate statistical framework, controlling for all other variables of study,

including being employed too. These analyses exclude Finland due to having no data on retirement status for this country. Results for the other nine countries reveal that, when differentiating between pensioners, employed and unemployed as controls, observed gender differences in time use remain unchanged.

Second, we conducted additional analyses to compare differences in time use between retired people and unemployed respondent, also adding a coefficient of being employed, controlling for various demographic factors, including age, gender, and country of study, again excluding Finland from the models. In Table A6 we observe some net differences between unemployed and retired people. For the age group of 45 to 64 years old we find that, compared to the retired, the unemployed spent 2 minutes less eating, 12 minutes more in housework, 21 minutes less on physical care, 16 minutes less on non-screen leisure, 1 minute less studying, and 26 minutes more in paid work ($p < 0.05$). Differences between retired and unemployed individuals for this age group were not statistically significant for care work, screen-based leisure, personal care, and sleeping. The observed differences between the unemployed and retired in paid work capture that retired people in the 45-64 age groups may have access to a pension. By contrast, the unemployed may eventually have to engage in casual paid work activities to make ends meet (typically through informal activities), particularly when unemployment benefits are limited or unavailable. However, we must stress that additional analyses (not shown) reveal that the proportion of unemployed people who spent some time in paid work in our sample is very low.

For the group of 65 years or older, differences between become statistically insignificant for meals, while we observe that the unemployed slept 8 daily minutes more than retired respondents ($p < 0.05$), net of all demographic controls. We interpret these results as a sign that retirement is associated with different life conditions compared to being a non-retired non-working person (e.g., unemployed people may have to engage more frequently in informal work activities than pensioners to make ends meet) or due to selection (e.g., unemployed people may have a more disadvantaged socioeconomic background than pensioners). Understanding these specific mechanisms goes beyond the scope of the present study.

Future studies should further address such interesting differences by carefully analyzing the interplay between gender, age, and country, considering existing variations in retirement and work policies

related to gendered time-use patterns. Unfortunately, we cannot specifically focus on the phenomenon of retirement for reasons of focus, space, and incomplete data on retirement for some countries. However, and crucially, additional analyses reveal that, after controlling for retirement in our models, the observed country and gender differences in our main analyses remain the same. Therefore, the main results of this paper remain do not change irrespective of whether we control for being a pensioner or not.

DISCUSSION

This article provides an exhaustive large-scale study of gender differences in time-use across age groups, using recent high-quality data across ten industrialized countries spanning the regions of Asia, Europe and North America. We make three key contributions to the international cross-national time use and gender literatures by (i) examining detailed time-diary data from childhood to old age, (ii) studying eight activities with key well-being implications, and (iii) showing age-specific gender gaps at both absolute (minute gap) and relative levels (percentage gaps). Our results clearly indicate that gender differences in time use differ by activities and across age groups. Yet, the magnitude of these gender-age interaction differs remarkably across countries with different policy contexts and gender norms.

First, our study shows that gender gaps in time use are small in essential activities such as sleeping and meals, moderate in leisure time, and highest in paid work (with men doing more of it) and domestic work (with women doing more of it). Yet, these gender gaps were largest in South Korea, Hungary and Southern Europe (more in Italy than in Spain). Western Europe (i.e. France, Netherlands) showed intermediate gender gaps in time use. Anglo-Saxon countries (more in Canada than the US and UK) and Finland showed the lowest gender differences in time-use patterns. These cross-country findings add new relevant evidence on the most robust and recent available time-diary cross-country data on gendered time use patterns. Lower differences in more essential activities reveal that gender gaps increase in activities that are more gendered stereotypical (especially paid work and domestic work) and in activities that depend more on the remaining time after basic and mandatory activities are considered (leisure time).

Second, we found important cross-country gender variations in time use across age groups that represent key variations in lifestyles and life-course stages. Gender gaps in housework and care work were

largest in the adult population over 29 and 44 years old, narrowing substantially among the elderly (from 65 years old onward). Italy, and especially South Korea, exhibited the largest gender gaps in domestic work, while Canada and Finland presented smaller gaps for these age groups in these activities. Furthermore, we found gender gaps in paid work to be largest during early/middle and middle/late adulthood (aged 30-44 and 45-64), and this was especially true for the Netherlands. Study time showed mixed patterns across countries and gender. Interestingly, both boys and girls in South Korea (ages 10-17) spent much more time studying than their counterparts in other countries, at the costs of their leisure time, showing an interesting finding to be explored in future literature.

Third, we conducted various statistical analyses to establish if findings are sensitive to demographic and socioeconomic factors. Our results generally remain stable when sociodemographic factors are considered, although factors such as the presence of children or being in a union moderate the association between gender and those activities where this association is stronger. Early/middle adulthood (ages 30-44) and middle/late adulthood (ages 45-64) are the ages where the gender gap in time use is most affected by the consideration of demographic and socioeconomic variables in the analyses, but the direction of this variation differs remarkably between activities and countries. Gender gaps in employment time decrease when controls are added, whereas they are larger in the case of housework. This fact indicates that gaps in housework and paid work are strongly driven by family characteristics (e.g., parenthood transitions) [3], although we still observe persistent gender gaps in both domestic work and paid work across countries when such family characteristics are considered. By contrast, gender gaps in leisure activities increase after adjusting for sociodemographic factors, indicating that mechanisms of gender inequalities in leisure follow different patterns than those linked to paid work, care work and housework. This pattern is observed in all countries, although it is clearer in countries with overall higher gender inequalities, like Hungary, Italy, South Korea and Spain.

The findings of our study suggest that policy and cultural contexts can critically shape the opportunities that men and women encounter to engage in different activities with key well-being and health implications. We found some relevant cross-national differences in time use in activities such as sleeping

and personal care, which are known to be associated with physical health and mental well-being [22-28], even if age-gender interactions for these activities did not differ cross-nationally. Yet, differences by country, age, and gender were significant when examining active leisure (a healthy activity to which women devote less time) and screen-based leisure (a potentially risky activity to which men devote more time) [25-28]. These findings contribute to international debates on health and well-being.

Interestingly, personal care does not differ significantly by age in our analyses. It is important to clarify that all activities like washing up, dress up, care for oneself, but also doctor visits, are included as personal care. By contrast, being in the hospital to care for others, and related activities, would be care work. We cannot differentiate between time travelling to hospital and other traveling with our data. Thus, all types of traveling are included in the traveling category (see the methods section). We hope future studies will be able to further investigate these important questions with more detail.

In general, we show that the national context plays an important role in moderating existing time-use gender gaps across the life course. We show that women in South Korean (an East Asian case), Italy (a Southern European case), followed by Hungary (an East-Central European case) and Spain (a Southern European case) are countries where women have higher constraints to spend time in non-domestic activities. Also, these gender gaps across countries are particularly strong in the ages associated with higher caring responsibilities (ages 30-44), with interesting patterns observed in specific countries. For example, Dutch women suffer the strongest paid work penalties of all countries from early adulthood (18-29 years old) to early/middle adulthood (30-44), capturing the institutionalization of female part-time employment in the country [41]. Contrary to less gender egalitarian countries in terms of gender politics and gender ideologies, Anglo-Saxon countries (and particularly Canada in our study) and Nordic European countries (i.e., Finland) reveal higher gender equality in time use than other countries, but especially regarding the most sensitive age groups with respect to gender inequalities (early/middle and middle/late adulthood). These results are important to situate public policy debates on the importance of targeting gender gaps in time use during early/middle adulthood, when risks of gender inequalities are highest, and particularly so in countries providing poorer support and resources to women in these age groups.

Our study offers a new understanding of how gender and age intersect which contribute to recent cross-national studies on gender gaps in time use. Our results help to contextualize existing scholarship that indicates cross-country variations in life satisfaction and well-being by highlighting the importance of age in shaping these gender disparities in how men and women use their time every day [3]. Also, by bringing together a time-use and life-course approach, our study provides a picture that contributes to cross-national research that has often focused on very specific age groups separately, including childhood and adolescence [18], early adulthood [42] or late adulthood [43], while complementing exceptional older studies that adopted a similar approach to our study [10].

We should acknowledge four types of limitations in our study, despite our contribution to the gender, time use and cross-national literatures. First, this study only uses the age of individuals to follow the life course. Not all individuals are in the same conditions at a specific age and future research should add other transition factors (i.e., union status, parenthood, retirement) to capture better the differences in time use during the life course and explore the causes of gender inequalities across national contexts. Our study conducts multiple regression analyses controlling for several demographic variables on such life-course stages, with results remaining quite consistent after these adjustments are added. Age is an interesting variable because it is constant across the world, despite people aging differently across different regions of the globe. The fact that we find differences between countries when comparing the same age groups, but also some consistent patterns, does reflect the interest of examining age variations to understand gender differences in time use. Future studies should focus on other indicators related to the life course (not only age) and more closely inspect issues related to retirement and youth unemployment, which vary significantly across countries.

Second, this study is limited to cross-sectional data collected around 2010 and individuals in each group of age are not the same. The availability of longitudinal data would provide information of the same individuals at different moments of their life course and would improve the analysis of changes on time use throughout the life course. However, at this stage, high-quality longitudinal time-use data with rich

measures from diary data are very scarce and limited to very few countries, which does not allow to conduct a large comparable cross-national analysis across various countries and regions.

Third, future related research should consider a 24-hour analytical framework by applying some alternative techniques that can more explicitly integrate all activities conducted over the day (Bauman et al 2019). Also, we must remember that activities are not fully comparable in terms of costs and benefits, which needs to be considered regarding the units of time. For example, the benefits of spending one hour exercising are not comparable to the benefits of spending one hour sleeping, as the latter is a much longer activity than the former. We hope future studies will ask similar questions than the ones we are asking in this study by adopting complementary methods that account for the nature of time-use tradeoffs that men and women face within a 24-hour context.

Fourth, this is an observational study that is subject to issues of selection and which does not have complete relevant information on demographic and socioeconomic variables. Our study presents multivariate analyses that adjust for employment status. This allows us to analytically disentangle the degree to which men and women differ in their time use after accounting for selection in employment. Yet, there may be other issues of selection that we cannot account for in our data (e.g. type of contract, specific occupation, employment trajectory) and that may still explain differences. This limits our ability to explain why gender differences in time use exist across age groups across the ten countries included in this study. Future studies should pay more attention to these issues by using surveys that, despite adding less countries and potentially poorer quality data on time use (e.g., some longitudinal surveys), do contain better data on employment trajectories and repeated observations to account for unobserved heterogeneity.

To conclude, and despite having some shortcomings that we acknowledge above, our study opens an important window to future studies and approaches on gender differences in time use. Future research should combine our approach with one that accounts for different periods to analyze the interaction between gender, age and time use, not only across countries, but also over recent decades by considering cohort and period effects [18, 44]. For example, recent studies conducted during the COVID-19 pandemic lockdowns reveal persistent time use differences between women and men due to the new responsibilities derived from

the COVID-19 emergency and temporary closure of schools [45, 46]. Future studies will be able to cover these more recent years in relation to the age and gender interactions in time use allocation across countries. We hope scholars will further collect rich time-use data from new countries across policy and cultural contexts, especially from low- and middle-income countries. This way scholars will be able to offer new understandings of how national contexts shape gender differences in time use across age groups and to assert in which direction gender gaps in time use are moving to.

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TABLES AND FIGURES

Figure 1. Average time by activity. Men and Women by country

Source: Own calculations from the Multinational Time Use Study [32].

*Activities created from the variable *Main activity*: Sleeping (codes 2 and 3), personal care (1 and 4), meals (5 and 6), paid work (7 to 13, except 10), study (15 to 17), housework (18 to 27), care for others (28 to 32), active leisure (42-47), screen-based leisure (59 to 61), other leisure (33-41 and 48-58) (see methods section). Other two activities include: travel (codes 62 to 68), others (10, 14 and 69).

**Estimates of the figure available in Table 1.

Figure 2. Average time by activity and age. Men and women by country

Source: Own calculations from the Multinational Time Use Study [32].

*Estimates of the figure available in Table 3.

Figure 2. Average time by activity and age. Men and women by country (continuation)

Source: Own calculations from the Multinational Time Use Study [32].

*Estimates of the figure available in Table 3.

Figure 3. Gender gaps in time use (Indicator from -1 to 1). Differences in activities by Age

Source: Own calculations from the Multinational Time Use Study [32].

*Estimates of the figure available in Table 4.

Figure 4. Gender Differences in Time Use.

Source: Own calculations from the Multinational Time Use Study [32].

Notes: Estimates for Panel A are available in table A3 and for Panel b in table A4. Estimates correspond to the coefficient for Category Men (ref=Women) from the OLS regressions by country and group of age. Panel A also control by day of the week. Panel B also control by day of the week, educational attainment, employment status, children in the household and union status.

Table 1. Average time and standard deviation by activity. Men's and Women's daily minutes by country

SEX	ACTIVITY	Spain	Italy	France	Netherlands	Hungary	South Korea	Finland	UK	Canada	US
Men	Sleeping	524	518	501	508	513	474	517	512	496	510
		(124,9)	(113,1)	(107,7)	(104,8)	(118)	(96,7)	(117,8)	(129)	(121,8)	(134,2)
	Personal care	49	53	49	53	79	71	43	51	33	43
		(32)	(34,5)	(38,3)	(45,3)	(52,2)	(31,4)	(36,5)	(40,1)	(37,8)	(57,7)
	Meals	100	106	136	76	103	69	79	89	62	58
		(47,6)	(46,3)	(73,9)	(48,9)	(52,8)	(46,9)	(44,3)	(64,9)	(57)	(50,3)
	Paid work	179	210	181	211	207	253	166	181	227	234
		(254,8)	(259,3)	(244,3)	(261,9)	(247,5)	(248,3)	(245,4)	(248,3)	(268,2)	(269,4)
	Study	39	37	13	61	31	90	35	33	29	21
		(122)	(117,9)	(74,4)	(140,9)	(107,1)	(197,1)	(111,5)	(108,8)	(107,5)	(92,3)
	Housework	78	50	118	88	95	31	110	99	115	86
		(99,2)	(91,3)	(124,7)	(106,5)	(105,7)	(55,1)	(116,6)	(107,6)	(138,6)	(117,5)
	Care for others	27	16	19	16	17	10	11	13	23	30
		(72,2)	(51,3)	(57,8)	(50,3)	(49,4)	(35,3)	(41,9)	(43,1)	(73,3)	(76,8)
	Active leisure	69	57	57	37	21	36	51	41	39	47
		(96,5)	(93)	(95,2)	(73)	(58,7)	(64,8)	(81,1)	(72,9)	(83,6)	(96,1)
	Screen-based leisure	173	140	163	128	189	151	190	199	172	188
		(140,1)	(109,4)	(137,4)	(119,9)	(136,1)	(132,8)	(148,5)	(164,3)	(167,1)	(180,5)
	Other leisure	127	160	123	184	120	160	158	121	165	140
		(133,6)	(136,1)	(132,1)	(162,7)	(121)	(104,5)	(147,8)	(134,8)	(180,6)	(162,9)
	Travel	72	90	79	79	65	95	68	77	79	77
		(66)	(67,9)	(83)	(78,9)	(68,5)	(69,2)	(82,1)	(80)	(83,6)	(79,9)
	Other	4	2	1	0	0	2	11	25	3	8
		(32)	(21,2)	(7,6)	(0,5)	(1,1)	(16,7)	(58,1)	(99,7)	(28,5)	(39,8)
Women	Sleeping	521	525	511	522	519	474	519	520	510	524
		(114,4)	(108,1)	(107,1)	(102,9)	(100,8)	(94,3)	(106,4)	(123,7)	(120,6)	(132)
	Personal care	53	54	57	61	75	72	54	64	46	57
		(34,6)	(34,7)	(39,3)	(45)	(52,7)	(38,2)	(36,8)	(45)	(40,1)	(64,7)
	Meals	100	106	132	76	97	71	79	86	58	54
		(45,9)	(43,8)	(70,6)	(49,5)	(46,1)	(41,9)	(43,3)	(61,3)	(55)	(47,5)
	Paid work	106	95	122	116	126	143	130	116	161	165
		(193,4)	(188)	(203,6)	(198,1)	(197,1)	(208,5)	(209,7)	(203,1)	(231,7)	(235,7)
	Study	37	39	16	58	28	81	32	32	29	20
		(119,9)	(121,2)	(81,7)	(136,6)	(102,3)	(187,4)	(101,7)	(104,7)	(107,7)	(89,5)
	Housework	207	226	195	165	218	155	163	169	169	152
		(151,5)	(172,6)	(134,7)	(135)	(139,8)	(124,7)	(123,6)	(130)	(148,7)	(142,2)
	Care for others	47	33	33	34	39	42	24	30	44	54
		(95,5)	(77,3)	(71,9)	(74,7)	(89,3)	(87,4)	(73,3)	(76,7)	(102,6)	(100,3)
	Active leisure	44	33	35	27	11	26	45	29	29	25
		(68,3)	(60,8)	(64,6)	(59,1)	(38,4)	(51,4)	(66,4)	(56,2)	(66,7)	(57,7)
	Screen-based leisure	147	113	136	98	157	132	143	154	136	163
		(121,4)	(96,7)	(122,6)	(95,9)	(115,1)	(111,8)	(116,9)	(130,1)	(140,7)	(162,7)
	Other leisure	113	143	128	203	116	156	174	140	186	149
		(122,6)	(122,9)	(125)	(153,3)	(113,9)	(107,4)	(139)	(132,7)	(179,9)	(159,5)
	Travel	64	73	73	79	55	87	68	72	71	73
		(61,4)	(64)	(77,7)	(78,4)	(60,2)	(67,9)	(80,2)	(73,7)	(77,1)	(78,7)
	Other	1	0	1	0	0	0	9	28	2	6
		(16,2)	(6,6)	(7,7)	(0,4)	(1,1)	(7)	(41,2)	(103,4)	(22,5)	(28,8)

Source: Own calculations from the Multinational Time Use Study [32]

Table 2. Gender gap measure by activity and country

SEX	ACTIVITY	Spain	Italy	France	Netherlands	Hungary	South Korea	Finland	UK	Canada	US
Gender gap (difference)	Sleeping	3	-7	-11	-14	-6	-1	-2	-8	-14	-14
	Personal care	-5	-1	-8	-8	4	-2	-11	-14	-12	-14
	Meals	-1	0	4	0	6	-2	0	3	4	3
	Paid work	73	116	59	94	81	108	37	65	66	71
	Study	2	-2	-3	3	4	10	3	1	-1	1
	Housework	-129	-176	-78	-77	-123	-124	-52	-69	-54	-66
	Care for others	-20	-17	-14	-18	-22	-31	-13	-17	-21	-24
	Active leisure	26	25	22	9	9	9	5	12	10	22
	Screen-based leisure	26	26	27	30	32	19	47	46	36	25
	Other leisure	14	17	-5	-19	5	5	-17	-20	-22	-10
	Travel	8	17	7	-1	10	8	0	5	8	4
	Other	3	1	0	0	0	1	2	-3	1	2
Gender gap (indicator)	Sleeping	0.003	-0.007	-0.011	-0.014	-0.006	-0.001	-0.002	-0.008	-0.014	-0.013
	Personal care	-0.045	-0.006	-0.079	-0.074	0.025	-0.013	-0.114	-0.118	-0.158	-0.141
	Meals	-0.003	0.002	0.015	-0.002	0.030	-0.012	0.001	0.015	0.030	0.029
	Paid work	0.257	0.363	0.195	0.288	0.243	0.275	0.124	0.218	0.172	0.179
	Study	0.027	-0.024	-0.102	0.028	0.063	0.056	0.044	0.020	-0.010	0.014
	Housework	-0.454	-0.579	-0.249	-0.306	-0.394	-0.668	-0.192	-0.259	-0.191	-0.277
	Care for others	-0.268	-0.338	-0.263	-0.348	-0.401	-0.601	-0.362	-0.410	-0.322	-0.284
	Active leisure	0.227	0.275	0.233	0.146	0.292	0.153	0.057	0.167	0.139	0.311
	Screen-based leisure	0.081	0.107	0.091	0.134	0.094	0.066	0.141	0.129	0.118	0.070
	Other leisure	0.057	0.060	-0.019	-0.049	0.019	0.015	-0.050	-0.075	-0.061	-0.034
	Travel	0.057	0.107	0.044	-0.004	0.087	0.045	0.003	0.031	0.052	0.026
	Other	0.516	0.598	-0.034	0.145	-0.028	0.620	0.123	-0.055	0.235	0.161

Source: Own calculations from the Multinational Time Use Study [32].

Note: For other, the point indicates that the value cannot be computed mathematically.

Table 3. Average time by activity and age. Men's and women's daily minutes by country

AGE	ACTIVITY	Spain		Italy		France		Netherlands		Hungary		South Korea		Finland		UK		Canada		US	
		M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
10-17	Sleeping	573	560	558	553	583	583	564	557	584	592	488	480	583	575	594	594	556	567	545	555
	Personal care	46	59	48	54	48	63	44	64	63	71	69	77	35	52	49	69	35	57	49	61
	Meals	98	98	103	99	116	112	68	69	95	97	63	61	69	69	71	71	50	43	44	47
	Paid work	2	2	9	3	16	7	33	24	14	4	1	1	9	11	15	11	54	65	33	34
	Study	254	267	262	279	218	230	276	279	210	218	453	466	197	164	190	195	212	235	234	262
	Housework	25	47	20	43	30	61	20	41	38	65	9	17	29	54	32	55	30	46	38	58
	Care for others	3	3	2	3	11	7	2	8	8	10	2	3	0	3	1	2	1	10	6	13
	Active leisure	61	48	55	43	62	38	63	41	55	34	21	6	57	38	43	28	64	30	70	37
	Screen-based leisure	181	156	152	129	181	158	138	88	198	161	130	111	221	187	228	162	204	138	152	147
	Other leisure	133	138	150	155	101	116	154	186	109	124	121	135	160	203	126	150	160	177	192	157
18-29	Sleeping	526	520	506	509	512	522	507	523	517	530	474	484	536	536	534	533	515	529	528	547
	Personal care	48	58	54	63	46	57	57	67	78	77	73	84	40	56	47	67	35	46	43	54
	Meals	93	97	96	98	121	120	64	63	96	90	56	60	67	67	82	73	50	46	50	47
	Paid work	157	137	216	133	215	146	261	186	180	110	202	172	190	135	228	163	229	180	232	182
	Study	86	86	86	103	55	70	77	77	85	98	132	112	54	70	60	50	64	72	44	39
	Housework	53	112	29	118	71	120	53	105	54	131	24	80	78	109	61	119	75	121	66	116
	Care for others	12	37	6	25	14	43	6	29	8	57	5	37	13	43	9	48	15	58	28	80
	Active leisure	59	39	43	36	36	25	23	21	27	14	23	14	38	42	33	21	37	26	43	15
	Screen-based leisure	174	137	112	100	162	130	120	89	180	143	168	128	209	149	181	137	160	115	155	142
	Other leisure	143	133	183	160	115	120	184	186	123	113	170	160	132	145	99	116	174	167	162	135
30-44	Sleeping	496	500	487	494	486	500	481	509	482	494	467	461	491	505	498	506	476	494	495	514
	Personal care	47	49	52	52	43	52	51	55	78	71	68	66	43	56	48	61	32	42	41	53
	Meals	93	94	98	99	127	127	72	76	99	95	68	73	75	78	76	78	56	54	54	51
	Paid work	278	172	360	181	297	196	333	163	324	197	359	182	283	193	302	170	317	215	318	210
	Study	10	13	3	5	3	4	13	14	6	6	12	13	6	8	6	5	13	14	5	11
	Housework	84	201	52	241	98	174	91	185	85	223	29	191	103	171	85	174	114	182	85	159
	Care for others	53	97	29	73	33	72	40	76	37	85	22	93	35	72	38	82	53	93	55	99
	Active leisure	47	33	36	27	37	28	22	19	15	9	26	21	41	36	30	26	32	25	38	21
	Screen-based leisure	141	105	107	78	139	102	106	86	159	121	131	112	159	110	157	124	131	101	150	121
	Other leisure	103	95	122	105	88	100	151	172	81	77	156	141	126	133	90	109	127	140	111	113
45-64	Sleeping	504	497	491	494	488	499	494	510	499	501	459	458	496	497	485	502	480	496	497	509
	Personal care	48	50	52	51	47	56	53	61	78	76	72	73	44	52	49	62	34	46	43	60
	Meals	102	102	107	107	139	133	79	83	106	98	75	75	82	81	88	87	66	60	59	53
	Paid work	235	127	272	128	205	148	247	118	237	158	329	186	215	189	233	162	259	191	268	204
	Study	5	6	1	2	1	2	15	10	2	2	4	5	3	6	3	3	4	4	3	5
	Housework	88	268	78	311	131	216	106	212	116	250	37	204	131	182	114	197	133	189	93	157
	Care for others	22	35	14	25	16	20	11	22	11	24	6	21	6	6	7	10	14	22	21	32
	Active leisure	72	48	61	32	59	39	35	31	16	9	46	38	50	53	39	34	38	33	48	27
	Screen-based leisure	168	139	133	101	155	128	127	103	194	159	145	133	181	130	199	150	174	140	194	165
	Other leisure	121	105	143	122	116	121	197	218	121	110	169	160	153	168	116	137	154	183	125	146
65+	Sleeping	585	572	559	564	523	529	533	544	552	548	504	513	535	532	507	511	518	526	544	541
	Personal care	54	57	59	55	58	63	60	63	88	75	73	69	51	58	59	66	31	46	45	62
	Meals	115	110	126	117	150	143	99	88	113	101	88	82	95	93	117	111	85	78	72	69
	Paid work	10	4	26	5	12	5	19	1	80	45	134	70	15	3	37	10	43	16	53	33
	Study	1	2	1	0	1	2	11	6	1	1	3	5	2	1	1	2	1	1	2	0
	Housework	97	245	107	290	151	237	152	226	130	249	61	190	161	224	154	219	156	195	107	177
	Care for others	18	18	15	16	12	11	10	14	10	15	9	14	2	5	4	4	8	9	12	13
	Active leisure	119	55	96	34	85	43	58	31	19	11	75	46	71	49	59	33	46	33	59	30
	Screen-based leisure	233	218	185	147	203	183	175	134	231	196	232	196	208	176	240	200	245	202	290	242
	Other leisure	161	126	205	174	183	175	254	272	180	164	190	191	225	240	171	192	245	281	195	219

Source: Own calculations from the Multinational Time Use Study [32].

Table 4. Gender gaps in time use (Indicator from -1 to 1). Differences in activities by age

AGE	ACTIVITY	Spain	Italy	France	Netherlands	Hungary	South Korea	Finland	UK	Canada	US
10-17	Sleeping	0.012	0.005	0.000	0.006	-0.007	0.008	0.007	0.001	-0.010	-0.009
	Personal care	-0.117	-0.063	-0.131	-0.189	-0.058	-0.050	-0.194	-0.165	-0.235	-0.112
	Meals	0.000	0.022	0.019	-0.009	-0.011	0.018	0.003	-0.001	0.075	-0.031
	Paid work	-0.151	0.545	0.371	0.154	0.546	0.014	-0.093	0.155	-0.090	-0.005
	Study	-0.026	-0.032	-0.027	-0.007	-0.019	-0.014	0.092	-0.014	-0.051	-0.056
	Housework	-0.310	-0.367	-0.331	-0.337	-0.262	-0.304	-0.307	-0.268	-0.204	-0.205
	Care for others	0.140	-0.238	0.171	-0.654	-0.110	-0.144	-0.729	-0.496	-0.777	-0.351
	Active leisure	0.118	0.119	0.242	0.214	0.236	0.531	0.198	0.215	0.363	0.306
	Screen-based leisure	0.074	0.082	0.069	0.218	0.103	0.077	0.085	0.171	0.191	0.016
18-29	Other leisure	-0.016	-0.016	-0.069	-0.096	-0.064	-0.055	-0.119	-0.089	-0.052	0.102
	Sleeping	0.006	-0.003	-0.009	-0.016	-0.012	-0.010	-0.001	0.001	-0.013	-0.017
	Personal care	-0.098	-0.080	-0.107	-0.078	0.008	-0.074	-0.166	-0.177	-0.139	-0.112
	Meals	-0.017	-0.009	0.007	0.008	0.035	-0.037	0.001	0.056	0.035	0.029
	Paid work	0.070	0.237	0.192	0.168	0.243	0.082	0.169	0.165	0.118	0.120
	Study	0.002	-0.086	-0.114	0.004	-0.068	0.085	-0.132	0.089	-0.060	0.062
	Housework	-0.360	-0.609	-0.260	-0.330	-0.418	-0.544	-0.165	-0.320	-0.232	-0.273
	Care for others	-0.528	-0.607	-0.507	-0.645	-0.743	-0.775	-0.527	-0.672	-0.590	-0.481
	Active leisure	0.200	0.090	0.187	0.030	0.319	0.238	-0.039	0.222	0.187	0.470
30-44	Screen-based leisure	0.121	0.058	0.110	0.151	0.115	0.132	0.168	0.136	0.163	0.046
	Other leisure	0.037	0.069	-0.019	-0.008	0.043	0.030	-0.047	-0.079	0.019	0.090
	Sleeping	-0.004	-0.007	-0.014	-0.028	-0.012	0.006	-0.015	-0.008	-0.018	-0.019
	Personal care	-0.019	0.003	-0.095	-0.038	0.047	0.014	-0.133	-0.123	-0.140	-0.123
	Meals	-0.007	-0.009	0.004	-0.022	0.020	-0.031	-0.016	-0.011	0.022	0.031
	Paid work	0.237	0.331	0.205	0.342	0.244	0.328	0.189	0.279	0.191	0.204
	Study	-0.134	-0.181	-0.235	-0.037	-0.012	-0.036	-0.155	0.089	-0.049	-0.402
	Housework	-0.411	-0.646	-0.280	-0.338	-0.448	-0.733	-0.245	-0.341	-0.229	-0.305
	Care for others	-0.293	-0.435	-0.368	-0.314	-0.397	-0.617	-0.345	-0.369	-0.274	-0.284
45-64	Active leisure	0.180	0.139	0.146	0.086	0.239	0.117	0.071	0.076	0.122	0.285
	Screen-based leisure	0.145	0.158	0.153	0.103	0.137	0.077	0.180	0.120	0.130	0.107
	Other leisure	0.039	0.074	-0.063	-0.066	0.022	0.049	-0.028	-0.095	-0.048	-0.011
	Sleeping	0.006	-0.003	-0.012	-0.016	-0.002	0.001	-0.002	-0.017	-0.016	-0.012
	Personal care	-0.022	0.013	-0.086	-0.068	0.007	-0.005	-0.081	-0.117	-0.157	-0.162
	Meals	-0.002	0.000	0.020	-0.026	0.039	0.000	0.007	0.008	0.043	0.055
	Paid work	0.298	0.359	0.161	0.355	0.201	0.279	0.064	0.180	0.151	0.137
	Study	-0.078	-0.451	-0.296	0.169	-0.103	-0.134	-0.331	-0.133	0.059	-0.266
	Housework	-0.504	-0.600	-0.245	-0.333	-0.366	-0.696	-0.163	-0.266	-0.176	-0.256
65+	Care for others	-0.232	-0.269	-0.109	-0.343	-0.362	-0.555	-0.004	-0.192	-0.245	-0.215
	Active leisure	0.201	0.309	0.205	0.057	0.290	0.101	-0.031	0.077	0.076	0.279
	Screen-based leisure	0.095	0.140	0.093	0.104	0.099	0.043	0.166	0.140	0.111	0.080
	Other leisure	0.071	0.081	-0.020	-0.050	0.050	0.028	-0.045	-0.082	-0.088	-0.079
	Sleeping	0.012	-0.005	-0.006	-0.009	0.004	-0.009	0.002	-0.004	-0.008	0.002
	Personal care	-0.033	0.039	-0.035	-0.025	0.080	0.031	-0.065	-0.055	-0.189	-0.154
	Meals	0.025	0.034	0.024	0.057	0.054	0.037	0.012	0.026	0.038	0.026
	Paid work	0.466	0.684	0.435	0.865	0.283	0.315	0.678	0.560	0.447	0.224
	Study	-0.135	0.475	-0.342	0.266	0.142	-0.132	0.066	-0.119	0.249	0.598
	Housework	-0.433	-0.462	-0.223	-0.194	-0.315	-0.514	-0.163	-0.174	-0.110	-0.244
	Care for others	-0.004	-0.006	0.052	-0.164	-0.224	-0.232	-0.446	-0.020	-0.074	-0.026
	Active leisure	0.371	0.478	0.333	0.303	0.279	0.240	0.179	0.278	0.164	0.319
	Screen-based leisure	0.034	0.114	0.053	0.130	0.080	0.085	0.081	0.091	0.096	0.092
	Other leisure	0.121	0.083	0.022	-0.035	0.047	-0.003	-0.032	-0.057	-0.069	-0.057

Source: Own calculations from the Multinational Time Use Study [32].

ANNEX

Table A1. Sample size by country, gender and group of age

SEX	AGE	Spain	Italy	France	Netherlands	Hungary	South Korea	Finland	UK	Canada	US
Men	10-17	747	1703	357	1071	266	3326	454	864	256	299
	18-29	1101	2520	1375	1036	619	2738	442	1054	762	796
	30-44	2322	4568	3327	1897	932	5330	685	1553	1540	1728
	45-64	3072	5574	4872	2149	1310	5778	1329	2393	2643	2081
	65+	1734	3850	2927	938	637	2256	594	1553	1500	908
	Total	8976	18215	12858	7091	3764	19428	3504	7417	6701	5812
Women	10-17	689	1587	405	1092	262	3088	448	948	232	282
	18-29	1194	2499	1694	1512	611	3026	518	1349	979	1014
	30-44	2746	4841	3763	2086	994	5922	825	1946	1985	2188
	45-64	3388	5930	5587	2730	1733	5926	1443	2634	3354	2457
	65+	2302	5162	3590	917	1026	3136	717	1803	2139	1507
	Total	10319	20019	15039	8337	4626	21098	3951	8680	8689	7448

Source: Multinational Time Use Study [32].

Table A2. Respondent percentage spending at least 1 daily minute in activities by country, gender and age

AGE	ACTIVITY	Spain		Italy		France		Netherlands		Hungary		South Korea		Finland		UK		Canada		US	
		M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
10-17	Sleeping	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Personal care	97	98	98	99	97	97	92	97	100	100	100	100	90	94	94	97	90	93	87	91
	Meals	100	100	100	100	98	99	94	95	100	100	99	98	97	98	97	97	84	76	91	93
	Work	0	1	2	1	7	6	14	10	16	8	1	1	5	6	6	5	17	22	12	11
	Study	71	72	73	77	61	62	76	79	63	61	95	96	59	56	57	59	59	65	59	67
	Housework	49	66	41	59	42	68	38	56	64	70	27	38	53	76	63	77	43	60	59	64
	Care for others	4	6	2	4	6	12	3	9	10	10	4	6	2	6	1	4	2	5	21	27
	Active leisure	50	41	46	39	41	30	46	37	44	30	35	12	44	46	40	31	42	24	49	37
	Screen-based leisure	92	92	92	89	85	84	82	73	91	94	83	79	90	94	93	86	92	80	85	79
	Other leisure	78	80	85	90	68	76	83	92	76	79	99	99	81	96	79	86	82	83	88	81
	Travel	86	87	95	96	85	82	88	87	86	81	97	96	80	84	82	84	92	92	94	87
18-29	Sleeping	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Personal care	96	98	97	99	94	95	96	97	100	100	100	99	93	98	91	96	84	84	83	86
	Meals	100	100	99	100	99	99	94	92	100	100	93	95	97	97	95	94	83	80	89	87
	Work	33	33	44	32	51	38	53	43	43	29	47	43	41	36	48	38	47	41	51	43
	Study	27	28	25	31	16	21	27	30	27	31	38	36	19	26	18	17	19	23	15	17
	Housework	55	82	40	80	70	86	59	79	70	89	45	75	80	88	77	90	74	85	73	87
	Care for others	10	22	6	17	15	31	7	18	9	24	7	21	12	22	12	29	13	28	31	57
	Active leisure	46	40	38	38	28	25	20	22	23	19	28	21	41	51	34	25	29	26	36	21
	Screen-based leisure	88	87	80	79	82	80	72	73	88	85	88	86	88	88	84	83	79	74	79	80
	Other leisure	80	79	89	87	72	77	84	89	81	78	99	98	78	87	71	78	80	81	78	75
	Travel	88	87	96	93	90	89	87	89	88	82	95	93	82	88	85	86	92	91	94	89
30-44	Sleeping	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Personal care	97	97	98	98	92	95	97	98	100	100	100	99	94	97	95	97	83	86	83	86
	Meals	99	100	99	100	99	99	94	93	100	100	95	97	97	99	96	95	85	84	91	92
	Work	56	43	72	45	65	52	67	43	71	52	79	47	60	46	63	43	64	49	66	50
	Study	5	7	1	2	2	3	10	10	3	4	7	8	2	5	3	4	5	6	2	6
	Housework	73	95	60	95	76	95	81	96	80	98	48	97	90	98	86	96	80	94	78	93
	Care for others	44	62	33	57	41	63	45	63	33	55	33	74	40	58	41	61	44	59	52	72
	Active leisure	41	36	32	28	32	29	23	23	15	9	30	26	43	45	33	33	27	29	34	31
	Screen-based leisure	87	84	81	75	82	76	77	76	89	86	87	87	89	85	87	86	79	74	81	78
	Other leisure	76	77	83	80	69	75	86	93	72	70	99	98	87	94	71	81	73	79	72	76
	Travel	91	90	96	93	88	87	81	86	90	82	96	93	83	85	89	87	94	91	94	91
45-64	Sleeping	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Personal care	97	98	98	97	94	96	97	97	100	100	100	99	93	97	94	97	81	87	79	87
	Meals	100	100	100	100	100	100	93	92	100	100	97	97	99	99	97	97	90	87	93	91
	Work	48	31	56	32	47	39	52	34	64	50	76	49	46	44	51	40	54	43	57	47
	Study	3	4	1	1	1	2	12	10	1	2	3	4	2	3	2	3	2	3	1	2
	Housework	70	97	67	98	83	96	83	97	85	99	51	98	91	98	88	98	83	95	77	91
	Care for others	20	29	17	28	16	23	14	23	12	22	12	35	10	12	12	19	12	17	26	36
	Active leisure	53	47	42	33	43	40	32	31	15	10	45	40	48	57	39	40	32	35	40	38
	Screen-based leisure	91	87	88	83	84	81	83	78	93	91	91	90	91	89	90	90	85	80	84	82
	Other leisure	80	78	87	84	77	82	93	95	85	80	99	99	90	96	76	86	79	87	77	82
	Travel	88	82	94	89	83	81	81	78	80	77	94	92	80	83	83	85	88	87	88	86
65+	Sleeping	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Personal care	98	98	98	97	95	96	94	97	100	100	100	99	93	96	96	97	73	85	72	85
	Meals	100	100	100	100	100	100	90	91	100	100	99	99	100	100	98	99	93	92	96	96
	Work	2	1	6	1	5	3	7	2	42	31	43	28	5	1	12	5	13	5	14	9
	Study	1	2	1	0	1	2	12	6	1	1	3	4	2	1	1	2	1	1	1	1
	Housework	72	92	78	92	89	97	89	98	86	99	71	95	94	98	94	98	86	95	78	94
	Care for others	14	16	13	15	12	13	10	12	9	13	12	19	3	7	7	7	5	8	15	16
	Active leisure	73	51	61	34	60	45	43	33	22	16	65	51	61	61	50	39	38	34	46	37
	Screen-based leisure	94	94	93	89	91	89	89	82	95	95	97	96	92	93	95	93	91	86	89	88
	Other leisure	85	80	94	91	92	90	95	98	90	90	98	99	95	98	90	94	89	93	85	91
	Travel	73	61	81	67	69	60	69	66	61	57	81	81	58	52	72	68	78	70	72	69

Source: Own calculations from the Multinational Time Use Study [32].

Note: values go from 0% 100%.

Table A3. Coefficient for Category Men (ref=Women) from the OLS regressions by country and age

ACT	AGE	ES		IT		FR		NL		HU		KR		FI		UK		CA		US	
		coef.	sig	coef.	sig	coef.	sig	coef.	sig	coef.	sig	coef.	sig	coef.	sig	coef.	sig	coef.	sig	coef.	sig
sleep	10	13.635 *		4.715		-0.051		6.254		-8.132		8.158 ***		8.019		0.299		-10.835		-10.128	
	18	6.670		-2.817		-9.271 *		-16.046 **		-12.548		-9.738 ***		-0.802		1.078		-13.996 *		-18.482 *	
	30	-4.351		-6.064 *		-13.285 ***		-27.902 ***		-12.168 *		6.255 ***		-13.981 *		-7.228		-17.587 ***		-19.611 ***	
	45	6.571 *		-3.157		-11.212 ***		-16.174 ***		-2.104		1.214		-1.447		-16.837 ***		-15.212 ***		-12.048 **	
	65	13.540 **		-5.376		-6.563 *		-10.193 *		4.064		-8.677 **		2.326		-4.396		-8.674 *		2.617	
personal care	10	-12.343 ***		-6.596 ***		-14.593 ***		-20.307 ***		-7.806 *		-7.231 ***		-17.005 ***		-19.427 ***		-21.672 ***		-12.381 *	
	18	-10.332 ***		-9.300 ***		-11.101 ***		-9.646 ***		1.201		-11.626 ***		-15.953 ***		-20.181 ***		-11.322 ***		-10.981 ***	
	30	-1.833		0.536		-8.872 ***		-4.017 **		7.025 **		1.872 **		-13.034 ***		-13.361 ***		-10.324 ***		-11.545 ***	
	45	-2.151 **		1.365		-8.838 ***		-7.704 ***		1.087		-0.672		-7.755 ***		-12.844 ***		-12.520 ***		-16.650 ***	
	65	-3.634 **		4.406 ***		-4.289 ***		-3.141		12.981 ***		4.437 ***		-7.175 **		-7.001 ***		-14.617 ***		-16.487 ***	
meals	10	0.034		4.316 *		4.178		-1.296		-2.096		2.242 **		0.385		-0.239		7.003		-2.851	
	18	-3.210		-1.743		1.688		0.964		6.423 *		-4.325 ***		0.114		8.653 **		3.342		2.818	
	30	-1.308		-1.516		1.508		-3.326 *		3.938		-4.415 ***		-2.308		-1.319		2.381		3.199 *	
	45	-0.314		-0.060		5.666 ***		-4.155 **		8.048 ***		0.057		1.130		1.415		5.369 ***		6.230 ***	
	65	5.595 ***		8.299 ***		7.121 ***		10.708 ***		11.556 ***		6.283 ***		2.249		5.940 *		6.263 **		3.725	
paid work	10	-0.556		6.282 **		8.747		8.848 *		9.917 **		0.033		-1.826		3.974		-10.668		-0.350	
	18	20.044		82.176 ***		68.920 ***		75.037 ***		70.728 ***		30.708 ***		55.156 **		63.911 ***		48.330 ***		49.891 ***	
	30	106.915 ***		173.763 ***		96.967 ***		169.701 ***		127.026 ***		176.400 ***		87.994 ***		127.523 ***		101.569 ***		107.811 ***	
	45	107.438 ***		143.490 ***		55.423 ***		129.560 ***		79.279 ***		143.839 ***		24.727 *		70.035 ***		67.863 ***		64.538 ***	
	65	6.366 **		21.012 ***		7.082 ***		17.399 ***		35.092 ***		64.170 ***		12.297 **		26.423 ***		26.545 ***		19.278 *	
study	10	-13.690		-15.054		-10.669		-3.721		-8.141		-12.789 **		32.689		-3.703		-22.760		-27.857	
	18	0.106		-16.488 **		-14.396 *		0.665		-12.417		20.682 ***		-16.294		9.612		-8.167		5.163	
	30	-2.937		-1.554		-1.633		-1.009		-0.155		-0.901		-2.293		0.932		-1.320		-6.360 **	
	45	-0.844		-1.052 *		-0.782 *		4.260 **		-0.424		-1.256		-2.782		-0.803		0.497		-2.124	
	65	-0.400		0.544		-0.824 *		4.433 **		0.294		-1.035		0.213		-0.334		0.513		1.372	
housework	10	-22.230 ***		-23.245 ***		-30.244 ***		-20.773 ***		-27.093 ***		-7.873 ***		-25.373 ***		-23.275 ***		-15.483 *		-19.542 *	
	18	-59.408 ***		-89.090 ***		-49.592 ***		-52.296 ***		-77.275 ***		-56.700 ***		-30.792 ***		-57.780 ***		-45.590 ***		-49.762 ***	
	30	-117.204 ***		-188.796 ***		-75.345 ***		-93.435 ***		-138.117 ***		-161.463 ***		-66.955 ***		-87.946 ***		-67.720 ***		-74.113 ***	
	45	-179.448 ***		-233.557 ***		-84.760 ***		-105.734 ***		-133.958 ***		-167.447 ***		-50.735 ***		-82.354 ***		-56.707 ***		-63.940 ***	
	65	-148.224 ***		-183.661 ***		-86.445 ***		-73.475 ***		-119.637 ***		-128.772 ***		-62.585 ***		-64.780 ***		-38.604 ***		-69.186 ***	
care for others	10	0.841		-1.112		3.106		-6.538 ***		-1.957		-0.631		-2.203 *		-1.172 **		-8.495		-6.952 *	
	18	-25.902 ***		-18.905 ***		-29.171 ***		-22.523 ***		-48.793 ***		-32.096 ***		-29.442 ***		-38.183 ***		-42.696 ***		-51.968 ***	
	30	-43.868 ***		-44.250 ***		-38.686 ***		-36.517 ***		-48.292 ***		-71.338 ***		-36.838 ***		-43.992 ***		-40.079 ***		-43.703 ***	
	45	-13.229 ***		-10.508 ***		-3.898 **		-11.026 ***		-12.677 ***		-15.322 ***		-0.055		-3.284 ***		-8.823 ***		-11.488 ***	
	65	-0.135		-0.222		1.214		-3.983		-5.508 *		-5.284 ***		-3.068 *		-0.173		-1.306		-0.638	
active leisure	10	12.755 **		11.491 ***		24.111 **		22.102 ***		21.128 *		14.591 ***		18.892 **		15.191 ***		33.835 ***		33.019 ***	
	18	19.678 ***		7.212 **		11.501 ***		1.335		13.190 **		8.878 ***		-3.165		11.924 ***		11.799 **		27.391 ***	
	30	14.273 ***		9.320 ***		10.036 ***		3.532 *		5.737 **		5.552 ***		5.549		4.473 *		6.968 **		16.767 ***	
	45	24.153 ***		28.632 ***		20.199 ***		3.757 *		7.015 ***		8.547 ***		-3.142		5.645 **		5.363 *		20.773 ***	
	65	64.393 ***		61.861 ***		42.656 ***		27.071 ***		8.400 ***		28.926 ***		21.422 ***		25.558 ***		12.890 ***		28.402 ***	
screen-based leisure	10	24.949 ***		23.016 ***		23.177 *		49.166 ***		36.918 **		18.622 ***		34.841 **		65.915 ***		65.296 ***		4.795	
	18	37.766 ***		12.226 ***		31.994 ***		31.517 ***		37.058 ***		39.144 ***		59.953 ***		43.568 ***		44.956 ***		13.530	
	30	35.507 ***		29.615 ***		37.386 ***		19.664 ***		38.466 ***		18.807 ***		48.640 ***		34.622 ***		30.297 ***		28.960 ***	
	45	29.419 ***		32.661 ***		26.324 ***		23.892 ***		34.921 ***		12.023 ***		51.859 ***		48.908 ***		34.933 ***		28.814 ***	
	65	15.179 **		37.683 ***		20.336 ***		40.254 ***		34.364 ***		36.229 ***		31.108 **		40.149 ***		42.859 ***		48.683 ***	
other leisure	10	-4.460		-5.691		-15.376		-32.741 ***		-15.023		-14.182 ***		-43.054 ***		-25.098 ***		-17.500		35.445 *	
	18	10.468		24.117 ***		-4.332		-2.913		10.270		9.871 **		-13.248		-16.612 **		6.447		26.698 **	
	30	7.554 *		18.815 ***		-10.760 ***		-21.380 ***		3.490		14.654 ***		-6.841		-17.912 ***		-12.850 *		-2.440	
	45	16.253 ***		21.340 ***		-4.181		-20.753 ***		11.524 **		9.070 ***		-14.300 *		-20.415 ***		-29.700 ***		-21.467 ***	
	65	34.639 ***		31.637 ***		7.916 *		-18.377 *		16.384 *		-1.347		-15.176		-20.946 ***		-36.301 ***		-23.602 **	

Notes: OLS regressions control for day of the week. *** p<0.001, ** p<0.01, * p<0.05

Table A4. Coefficient for Category Men (ref=Women) from the OLS regressions by country and age

ACT	AGE	ES		IT		FR		NL		HU		KR		FI		UK		CA		US	
		coef.	Men sig	coef.	Men sig	coef.	Men sig	coef.	Men sig	coef.	Men sig	coef.	Men sig	coef.	Men sig	coef.	Men sig	coef.	Men sig	coef.	Men sig
sleep	10	13.423	*	5.201		3.026		6.824		-7.664		8.146	***	8.223		-1.213		-13.186		-10.128	
	18	3.794		0.580		-7.662		-19.164	***	-13.508		-7.669	**	-5.539		1.047		-15.393	*	-19.324	*
	30	0.341		0.557		-13.831	***	-21.823	***	-6.317		13.140	***	-12.112	*	-4.853		-17.134	***	-15.855	**
	45	17.093	***	7.033	**	-10.342	***	-7.129	**	2.102		19.092	***	-1.921		-14.768	***	-11.033	***	-7.106	
	65	27.105	***	11.315	**	2.248		2.485		6.665		14.429	***	5.004		-0.982		-3.033		4.865	
personal care	10	-12.318	***	-6.734	***	-14.561	***	-20.470	***	-7.651	*	-7.235	***	-17.068	***	-19.062	***	-21.994	***	-12.322	*
	18	-11.500	***	-10.414	***	-12.146	***	-11.551	***	-0.606		-14.394	***	-16.359	***	-20.669	***	-13.526	***	-15.113	***
	30	-1.727		-1.351		-9.591	***	-4.368	*	5.228	*	-3.772	***	-12.517	***	-13.541	***	-11.354	***	-11.626	***
	45	-1.289		2.078	**	-8.313	***	-5.789	***	1.441		-1.350		-7.319	***	-12.001	***	-12.633	***	-15.890	***
	65	-1.971		6.551	***	-4.297	**	-2.059		13.112	***	3.613	**	6.266	*	-5.820	**	-12.939	***	-17.035	***
meals	10	-0.015		4.435	*	4.967		-1.362		-1.843		2.260	**	0.221		-0.268		7.247	*	-2.842	
	18	-3.306		0.712		2.262		1.068		7.291	*	-3.143	**	0.357		8.524	**	5.232	*	4.497	
	30	0.808		3.470	**	2.063		-1.530		5.225	*	0.506		-0.056		0.015		3.023		3.816	*
	45	2.609	*	4.896	***	5.104	***	-3.386	*	8.452	***	3.750	***	0.057		2.233		5.481	***	5.277	**
	65	3.186	*	5.623	***	1.408		7.229	*	11.952	***	2.102		0.185		2.031		2.515		1.759	
paid work	10	0.159		3.398	*	-4.066		7.389		8.905	**	-0.109		-4.657		7.203		-1.065		-1.489	
	18	22.431	**	30.655	***	47.630	***	53.972	***	48.414	***	28.407	***	55.919	***	48.602	***	30.913	**	17.408	
	30	56.620	***	91.694	***	93.192	***	139.362	***	73.166	***	66.532	***	62.468	***	89.442	***	65.015	***	54.376	***
	45	40.114	***	54.353	***	52.763	***	88.187	***	55.479	***	45.724	***	25.284	**	51.392	***	38.972	***	40.948	***
	65	-0.076		2.151		4.227	**	8.536	***	28.705	***	9.689	*	4.749		16.651	***	4.160		6.762	
study	10	-14.403		-12.881		-6.296		-1.779		-6.870		-12.536	**	34.389	*	-5.194		-26.213		-26.986	
	18	-3.233		0.611		-12.909	*	6.904		-18.302		11.594	*	-22.833	*	11.073		-6.539		4.264	
	30	-0.878		1.526		-1.274		0.803		1.427		5.450	**	0.197		2.832		2.907		-3.451	
	45	-0.205		-0.879	*	-0.820	*	3.400	*	-0.435		-0.615		-2.673		-0.458		0.738		-1.754	
	65	-0.535		0.324		-1.288	**	4.731	**	0.041		-2.954	*	0.370		-0.382		0.233		0.960	
housework	10	-22.124	***	-23.366	***	-27.362	***	-20.786	***	-27.546	***	-7.901	***	-25.537	***	-23.253	***	-15.521	*	-19.457	*
	18	-52.488	***	-72.875	***	-42.985	***	-44.927	***	-62.908	***	-48.483	***	-23.219	**	-51.755	***	-36.691	***	-35.569	***
	30	-99.646	***	-147.941	***	-72.535	***	-80.665	***	-121.377	***	-122.337	***	-59.657	***	-75.603	***	-54.677	***	-59.334	***
	45	-162.907	***	-203.780	***	-84.567	***	-95.875	***	-127.747	***	-141.470	***	-54.756	***	-77.596	***	-51.685	***	-61.711	***
	65	-160.648	***	-195.577	***	-94.618	***	-73.691	***	-118.335	***	-136.419	***	-72.002	***	-67.033	***	-42.606	***	-71.957	***
care for others	10	0.865		-1.073		4.385		-6.484	***	-1.922		-0.640		-2.245	*	-1.184	**	-8.134		-6.991	*
	18	-15.851	***	-8.410	***	-16.158	***	-11.780	***	-21.173	***	-19.741	***	-20.051	***	-29.565	***	-26.600	***	-18.772	***
	30	-32.031	***	-30.955	***	-33.385	***	-31.158	***	-27.918	***	-48.870	***	-27.582	***	-34.833	***	-33.182	***	-26.648	***
	45	-11.332	***	-8.016	***	-5.680	***	-9.977	***	-12.714	***	-12.246	***	-1.870		-3.832	***	-9.491	***	-10.921	***
	65	-3.648		-2.852		-0.678		5.079	*	5.341	*	-6.841	***	4.168	**	-0.407		-2.687		-1.725	
active leisure	10	12.791	**	11.366	***	24.881	**	22.363	***	21.445	*	14.592	***	18.738	**	14.895	***	33.577	***	33.085	***
	18	19.430	***	8.798	***	12.996	***	-0.025		11.267	**	8.542	***	-0.850		12.061	***	11.681	**	24.636	***
	30	16.192	***	13.052	***	10.139	***	3.244		7.259	**	12.347	***	5.835		4.287	*	7.476	**	18.413	***
	45	34.608	***	40.222	***	20.349	***	5.791	**	8.236	***	20.911	***	-1.968		6.379	**	6.972	**	20.986	***
	65	65.462	***	62.411	***	43.160	***	26.573	***	8.499	***	32.271	***	22.850	***	22.853	***	11.479	***	25.085	***
screen-based leisure	10	24.905	***	23.554	***	25.263	*	49.439	***	36.505	**	18.580	***	35.362	**	64.661	***	62.289	***	5.091	
	18	32.448	***	17.463	***	29.798	***	35.513	***	36.806	***	37.515	***	51.434	***	44.672	***	42.408	***	8.031	
	30	41.868	***	37.039	***	31.877	***	21.850	***	42.914	***	46.287	***	47.818	***	40.108	***	35.215	***	33.410	***
	45	47.761	***	46.010	***	29.670	***	30.451	***	41.077	***	46.503	***	52.640	***	54.228	***	46.720	***	38.405	***
	65	21.413	***	44.452	***	28.147	***	39.311	***	36.347	***	70.401	***	33.787	***	51.195	***	51.654	***	68.175	***
other leisure	10	-4.423		-5.513		-16.464		-33.912	***	-15.474		-14.190	***	-42.260	***	-24.686	***	-18.985		35.326	*
	18	5.447		23.509	***	-4.003		-6.157		4.820		5.147		-13.902		-16.580	**	2.990		22.531	*
	30	9.582	**	24.168	***	-10.850	***	-20.351	***	9.325		20.228	***	-1.892		-12.239	**	5.854		4.166	
	45	24.653	***	40.038	***	-2.757		-7.855		18.031	***	16.061	***	-11.369	*	-13.867	**	-20.718	***	-15.768	**
	65	39.335	***	44.331	***	15.090	***	8.087		17.582	*	15.622	***	3.722		-16.617	**	-14.457	*	-19.368	*

Notes: OLS regressions control for day of the week (as in Table A3), but also for educational attainment, employment status, children in the household and union status. *** p<0.001, ** p<0.01, * p<0.05

Table A5. Median and Interquartile Range by activity. Men's and Women's daily minutes by country

SEX	ACTIVITY		South									
			Spain	Italy	France	Netherlands	Hungary	Korea	Finland	UK	Canada	US
Men	Sleeping	Median	520	520	500	495	510	470	520	520	490	510
		p25	450	450	450	435	445	420	460	450	420	440
		p75	600	590	570	570	580	540	600	590	560	600
	Personal care	Median	40	50	40	45	70	70	40	40	30	30
		p25	30	30	30	30	50	50	20	20	10	5
		p75	60	70	60	60	95	90	60	70	45	60
	Meals	Median	90	110	130	75	90	60	80	80	60	45
		p25	70	80	90	45	70	40	50	40	25	25
		p75	130	140	170	105	120	90	100	120	90	75
	Paid work	Median	0	0	0	0	60	90	0	0	0	0
		p25	0	0	0	0	0	0	0	0	0	0
		p75	420	360	360	495	440	460	160	360	475	455
	Study	Median	0	0	0	0	0	0	0	0	0	0
		p25	0	0	0	0	0	0	0	0	0	0
		p75	0	0	0	0	0	0	0	0	0	0
	Housework	Median	40	30	90	45	60	0	80	70	70	45
		p25	0	0	20	0	10	0	30	20	15	2
		p75	120	110	180	135	150	40	170	160	180	125
	Care for others	Median	0	0	0	0	0	0	0	0	0	0
		p25	0	0	0	0	0	0	0	0	0	0
		p75	0	0	0	0	0	0	0	0	0	15
	Active leisure	Median	30	0	0	0	0	0	0	0	0	0
		p25	0	0	0	0	0	0	0	0	0	0
		p75	120	110	90	60	0	60	90	60	45	60
	Screen-based leisure	Median	150	120	140	105	170	130	180	180	145	150
		p25	70	60	60	30	90	60	90	80	60	60
		p75	260	210	240	195	260	230	290	300	260	300
	Other leisure	Median	100	160	90	150	90	140	130	90	118	95
		p25	30	70	20	60	25	90	50	20	30	15
		p75	200	270	200	270	180	220	260	200	265	230
	Travel	Median	60	70	60	60	50	80	50	60	60	55
		p25	20	40	20	30	20	50	10	20	20	20
		p75	100	120	110	105	90	120	90	110	100	100
	Other	Median	0	0	0	0	0	0	0	0	0	0
		p25	0	0	0	0	0	0	0	0	0	0
		p75	0	0	0	0	0	0	0	10	0	0
Women	Sleeping	Median	510	520	510	510	510	470	530	520	510	530
		p25	450	460	450	465	450	420	470	460	450	450
		p75	590	580	570	570	570	540	600	590	570	603
	Personal care	Median	50	50	50	45	65	70	50	60	40	45
		p25	30	30	30	30	45	50	30	40	20	20
		p75	70	80	70	75	90	90	70	80	60	75
	Meals	Median	100	110	120	75	90	70	70	80	50	45
		p25	70	80	90	45	70	40	50	40	20	20
		p75	120	140	170	105	110	90	100	120	90	75
	Paid work	Median	0	0	0	0	0	0	0	0	0	0
		p25	0	0	0	0	0	0	0	0	0	0
		p75	0	0	90	195	240	290	10	0	375	225
	Study	Median	0	0	0	0	0	0	0	0	0	0
		p25	0	0	0	0	0	0	0	0	0	0
		p75	0	0	0	0	0	0	0	0	0	0
	Housework	Median	190	230	180	135	210	140	140	150	140	120
		p25	90	100	90	45	110	40	70	70	60	40
		p75	310	370	280	255	315	240	240	260	260	235
	Care for others	Median	0	0	0	0	0	0	0	0	0	0
		p25	0	0	0	0	0	0	0	0	0	0
		p75	40	10	30	30	20	30	0	10	9	60
	Active leisure	Median	0	0	0	0	0	0	20	0	0	0
		p25	0	0	0	0	0	0	0	0	0	0
		p75	80	60	60	30	0	40	70	40	30	20
	Screen-based leisure	Median	120	90	120	75	135	110	130	140	110	120
		p25	60	30	40	15	75	50	60	60	30	40
		p75	220	160	200	150	220	200	220	230	210	245
	Other leisure	Median	90	140	110	180	90	130	160	120	150	120
		p25	20	60	30	75	20	80	70	40	45	30
		p75	180	230	210	285	180	210	270	230	300	245
	Travel	Median	50	50	60	60	40	70	50	50	50	51
		p25	20	20	10	30	10	40	10	20	20	20
		p75	90	100	100	105	80	120	90	100	95	100
	Other	Median	0	0	0	0	0	0	0	0	0	0
		p25	0	0	0	0	0	0	0	0	0	0
		p75	0	0	0	0	0	0	0	10	0	0

Source: Multinational Time Use Study [32].

Table A6. Net differences between retired and other employment status.

	Sleeping	Personal care	Meals	Paid work	Study	Housework	Care for others	Active leisure	Screen-based leisure	Other leisure
AGE GROUP: 45 to 64										
Employed (ref. retired)	-31,560*** (1,526)	0,125 (0,615)	-12,814*** (0,791)	300,678*** (1,286)	-2,826*** (0,404)	-76,538*** (1,993)	-13,545*** (0,931)	-39,491*** (1,372)	-62,949*** (1,917)	-60,318*** (1,972)
Non employed (ref. retired)	0,51 (1,691)	0,934 (0,711)	-2,412** (0,859)	26,424*** (1,232)	1,388** (0,516)	11,951*** (2,244)	1,249 (1,065)	-20,968*** (1,443)	-0,535 (2,155)	-16,444*** (2,157)
Constant	503,158*** (8,869)	44,057*** (2,956)	69,893*** (3,984)	-14,627*** (2,358)	18,891*** (2,629)	240,698*** (9,608)	32,539*** (3,835)	56,064*** (5,246)	180,406*** (10,43)	92,667*** (9,571)
Observations	63.611	63.611	63.611	201.972	63.611	63.611	63.611	63.611	63.611	63.611
R-squared	0,079	0,069	0,198	0,481	0,018	0,316	0,064	0,074	0,125	0,124
AGE GROUP: 65 or older										
Employed (ref. retired)	-23,483*** (2,154)	-2,339** (0,899)	-7,779*** (1,105)	251,016*** (4,35)	-1,966*** (0,43)	-49,316*** (2,629)	-7,045*** (0,835)	-31,608*** (1,772)	-75,702*** (2,798)	-58,928*** (2,822)
Non employed (ref. retired)	7,740*** (2,273)	1,43 (0,955)	-0,073 (0,907)	7,576*** (1,178)	-0,548** (0,207)	14,230*** (2,671)	-1,332 (1,083)	-15,744*** (1,338)	2,493 (2,536)	-9,601*** (2,475)
Constant	276,628*** (11,661)	38,083*** (3,986)	58,074*** (5,02)	49,043*** (6,091)	9,400*** (1,482)	468,358*** (11,605)	64,943*** (4,228)	161,083*** (7,401)	106,807*** (12,656)	24,088* (12,217)
Observations	37.885	37.885	37.885	37.885	37.885	37.885	37.885	37.885	37.885	37.885
R-squared	0,105	0,038	0,172	0,494	0,022	0,233	0,025	0,103	0,091	0,092

Source: Multinational Time Use Study [32]. OLS also control by country, continuous age, educational attainment, employment status, children in the household, union status and day of the week. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table A7. Median by activity for those who spend at least 1 minute in the activity.
Men's and Women's daily minutes by country

AGE	ACTIVITY	Spain		Italy		France		Netherlands		Hungary		South Korea		Finland		UK		Canada		US	
		M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
10-17	Sleeping	570	560	560	560	600	590	555	540	570	573	490	490	600	585	600	600	540	554	570	575
	Personal care	40	50	50	50	40	60	45	60	55	65	70	70	40	50	40	60	30	60	40	60
	Meals	90	90	100	100	110	110	60	60	90	85	60	60	70	60	70	70	55	50	40	45
	Paid work	430	385	435	225	110	65	180	180	50	40	165	240	140	175	180	190	310	320	245	232
	Study	390	385	360	350	350	320	390	390	378	400	470	480	320	300	350	340	370	375	397	368
	Housework	40	50	30	60	60	60	30	45	45	60	20	30	40	50	30	50	45	50	40	60
	Care for others	60	30	30	30	90	40	45	60	60	80	30	30	20	30	30	30	48	104	10	27
	Active leisure	110	110	120	100	120	110	120	90	90	85	50	40	100	70	90	70	127	95	120	90
	Screen-based leisure	170	150	150	130	210	180	150	105	182	150	140	130	220	190	235	170	180	148	151	175
18-29	Other leisure	140	150	170	170	120	140	150	165	113	130	110	120	180	190	130	160	150	175	180	180
	Sleeping	520	520	510	510	510	520	495	510	510	530	470	480	540	540	540	540	510	530	540	550
	Personal care	40	50	50	60	40	50	45	60	70	70	70	80	40	50	40	60	30	50	40	60
	Meals	90	90	90	90	110	110	60	60	85	80	50	60	60	60	70	70	50	45	45	45
	Paid work	480	430	490	440	470	420	510	480	450	440	450	420	450	410	480	450	485	464	469	450
	Study	290	300	310	290	330	300	285	225	343	330	320	270	220	225	300	260	340	305	243	180
	Housework	60	110	50	110	70	120	60	105	55	130	40	80	70	90	60	110	60	115	60	113
	Care for others	80	150	60	110	60	110	60	150	70	210	40	160	70	160	50	130	70	168	45	95
	Active leisure	110	80	110	80	110	80	90	90	80	60	70	60	80	70	80	60	105	60	90	55
30-44	Screen-based leisure	160	130	120	110	170	140	135	90	174	135	160	130	200	150	180	140	150	120	180	140
	Other leisure	150	140	210	190	130	130	180	180	120	110	150	140	130	140	110	120	155	160	175	150
	Sleeping	480	500	500	500	480	510	465	495	480	490	460	460	500	520	510	510	480	495	502	518
	Personal care	40	40	50	50	40	50	45	45	70	60	60	60	40	50	40	60	30	45	40	50
	Meals	90	90	100	100	120	110	75	75	90	90	60	70	70	70	70	70	60	60	50	45
	Paid work	490	420	490	410	480	420	510	420	470	440	470	400	480	450	480	420	500	455	481	450
	Study	160	150	230	170	90	60	90	90	155	120	110	110	180	150	120	90	235	153	210	142
	Housework	90	190	70	240	100	170	75	180	75	210	40	190	90	160	80	170	90	155	75	150
	Care for others	90	120	80	100	60	90	60	105	90	125	50	80	70	70	70	100	85	125	75	103
45-64	Active leisure	90	80	100	90	90	80	75	60	75	75	70	70	80	70	70	70	90	60	90	60
	Screen-based leisure	130	100	120	90	150	120	113	105	150	120	120	110	170	120	160	120	130	105	155	125
	Other leisure	100	100	150	130	110	110	135	150	80	85	140	120	110	120	100	120	120	125	120	120
	Sleeping	500	490	490	500	490	500	480	510	495	500	460	460	510	510	490	510	480	490	507	510
	Personal care	40	50	50	50	40	50	45	60	70	65	70	70	40	50	40	60	30	45	40	60
	Meals	100	100	110	110	130	120	75	90	95	90	70	70	80	80	80	80	60	60	50	50
	Paid work	490	420	480	390	470	420	495	375	400	360	450	400	470	450	475	420	495	465	484	455
	Study	155	110	110	130	60	75	90	75	75	93	80	90	100	170	75	100	143	120	180	160
	Housework	100	260	90	320	130	210	90	195	115	241	50	190	110	170	110	190	120	165	85	140
65+	Care for others	60	80	60	60	60	60	45	60	65	90	30	30	30	30	40	40	85	90	45	60
	Active leisure	110	90	120	90	120	80	90	75	73	60	80	80	90	70	70	60	90	60	80	58
	Screen-based leisure	160	140	140	110	160	130	135	120	180	150	130	130	180	140	200	150	177	145	195	166
	Other leisure	120	120	160	140	120	120	180	210	120	120	150	140	140	170	130	140	150	170	120	150
	Sleeping	570	560	540	540	520	530	525	540	550	540	500	510	530	540	510	510	510	525	540	540
	Personal care	50	50	50	50	50	60	45	60	75	65	70	60	50	50	50	60	30	45	43	43
	Meals	110	100	120	120	140	130	105	90	100	90	90	80	90	90	110	100	80	70	60	60
	Paid work	520	405	430	390	140	60	225	30	160	90	305	210	250	165	260	160	330	368	374	374
	Study	100	105	120	110	60	70	75	68	215	145	100	100	70	100	80	80	120	99	90	90
65+	Housework	110	250	110	300	140	230	150	225	135	250	60	190	140	210	140	210	140	180	90	90
	Care for others	100	90	70	70	60	60	53	60	90	90	50	40	30	60	30	30	113	75	32	32
	Active leisure	140	90	130	80	120	80	105	75	60	60	100	70	80	70	90	60	85	60	82	82
	Screen-based leisure	230	220	180	150	210	180	180	135	220	190	220	180	210	170	240	190	240	210	310	310
65+	Other leisure	170	130	220	180	180	180	240	255	170	165	170	170	230	220	170	190	240	270	205	205

Source: Multinational Time Use Study [32].

Table A8. IQR by activity for those who spend at least 1 minute.
Men's and Women's daily minutes by country

AGE	ACTIVITY	Spain				Italy				France				Netherlands				Hungary			
		M		W		M		W		M		W		M		W		M		W	
		p25	p75	p25	p75	p25	p75	p25	p75	p25	p75	p25	p75	p25	p75	p25	p75	p25	p75	p25	p75
10-17	Sleeping	500	640	500	640	500	650	500	640	520	680	530	670	495	615	495	615	510	630	520	640
	Personal care	30	60	40	80	30	70	30	80	30	60	40	80	30	60	30	75	40	75	50	90
	Meals	70	120	70	120	80	130	70	130	70	140	80	140	45	90	45	90	70	110	65	110
	Paid work	110	480	250	475	275	490	190	300	60	530	50	255	75	420	75	375	20	170	15	68
	Study	170	470	150	495	150	440	120	450	120	490	120	480	270	465	270	465	208	450	250	470
	Housework	20	70	20	100	20	70	30	110	30	110	30	120	15	60	30	90	15	90	25	135
	Care for others	20	120	20	50	20	80	20	70	45	145	20	70	23	75	30	120	30	120	20	120
	Active leisure	60	150	60	160	70	170	60	150	70	200	60	180	75	165	60	135	60	145	45	150
	Screen-based leisure	100	270	90	240	90	230	70	200	110	300	90	270	75	225	60	165	108	285	90	230
	Other leisure	70	250	70	270	90	290	90	280	60	210	70	240	60	270	90	285	55	190	60	210
18-29	Sleeping	440	610	450	600	440	600	440	590	450	600	460	600	435	570	465	585	435	600	455	600
	Personal care	30	60	30	80	30	80	40	90	30	60	30	80	30	75	45	90	50	97	50	95
	Meals	60	120	70	120	60	130	70	130	70	160	80	150	45	90	45	90	70	110	60	105
	Paid work	400	550	300	490	420	540	320	500	340	520	240	500	435	570	345	525	285	515	280	480
	Study	170	440	150	440	180	440	170	410	125	500	120	450	150	420	120	360	210	435	158	465
	Housework	30	130	50	200	20	100	50	220	40	130	60	200	30	120	45	195	20	108	52	225
	Care for others	40	150	70	230	30	150	40	200	40	135	60	190	30	113	90	225	35	130	120	330
	Active leisure	70	180	50	130	60	160	60	130	60	180	40	130	75	135	60	120	60	125	30	100
	Screen-based leisure	90	280	80	210	70	200	60	170	100	280	80	220	75	225	45	165	100	280	90	215
	Other leisure	70	280	60	260	120	340	100	300	60	250	60	240	75	315	90	285	55	210	55	185
30-44	Sleeping	420	570	440	570	430	570	450	560	430	550	450	570	420	525	450	555	420	540	440	550
	Personal care	30	60	30	60	30	70	30	70	30	60	30	70	30	60	30	60	50	95	45	85
	Meals	60	120	70	120	70	130	70	130	80	160	80	160	45	90	45	105	70	115	70	110
	Paid work	420	580	300	480	410	560	300	490	350	540	210	490	465	570	270	510	360	540	270	480
	Study	90	260	80	240	120	370	110	300	40	180	30	180	30	195	45	158	90	250	75	270
	Housework	40	160	110	290	30	140	140	360	50	190	90	260	45	150	90	270	30	150	120	320
	Care for others	40	170	60	210	40	140	40	180	30	110	50	160	30	120	60	165	50	150	60	215
	Active leisure	60	150	50	120	60	170	60	130	60	170	40	130	45	120	45	105	53	130	60	120
	Screen-based leisure	80	220	60	170	70	190	60	140	90	230	60	180	60	180	60	150	90	240	70	180
	Other leisure	50	190	50	180	70	260	60	210	50	200	60	190	60	240	75	255	40	150	40	150
45-64	Sleeping	440	570	440	550	440	560	440	550	430	540	450	560	435	540	450	555	435	555	450	555
	Personal care	30	60	30	70	30	70	30	70	30	60	30	70	30	60	30	75	50	93	45	90
	Meals	70	130	70	130	80	140	80	140	90	180	90	170	60	105	60	120	75	123	70	115
	Paid work	420	570	330	480	370	550	290	480	300	540	210	490	435	555	225	495	175	505	130	475
	Study	80	250	70	180	95	170	110	240	40	120	30	130	45	180	45	135	35	295	60	180
	Housework	50	180	160	370	40	170	200	430	60	220	120	310	45	180	120	300	50	200	150	345
	Care for others	30	140	40	160	20	120	20	120	30	120	30	120	30	90	30	120	40	115	45	145
	Active leisure	60	180	60	130	70	200	60	130	60	190	50	130	60	135	45	120	40	120	35	110
	Screen-based leisure	90	260	80	220	90	220	60	160	100	240	80	210	75	210	60	180	120	270	95	225
	Other leisure	60	220	60	200	90	270	70	220	60	220	60	210	90	300	120	315	60	195	60	190
65+	Sleeping	510	650	500	630	480	620	490	620	480	570	480	580	480	570	495	585	490	610	490	600
	Personal care	30	70	30	70	30	80	30	80	30	80	40	80	30	75	30	75	50	105	45	90
	Meals	90	140	80	130	100	150	90	140	110	180	100	170	75	135	60	120	80	130	70	115
	Paid work	350	600	360	475	270	540	280	500	40	390	40	180	105	405	30	60	70	260	50	193
	Study	70	130	60	145	60	240	90	140	30	130	45	125	45	120	30	120	158	290	100	160
	Housework	50	190	170	340	50	190	210	390	80	230	150	320	75	240	135	315	65	210	175	325
	Care for others	50	160	40	160	40	150	30	140	30	120	30	110	30	135	30	165	55	133	50	150
	Active leisure	90	220	60	140	80	210	60	120	60	180	50	120	60	180	45	120	30	115	35	90
	Screen-based leisure	150	330	140	310	120	260	90	220	130	300	120	270	120	255	90	225	150	315	120	270
	Other leisure	90	265	70	220	130	310	110	270	100	280	100	270	150	375	165	375	100	270	100	255

Source: Multinational Time Use Study [32].

Table A8 (continuation).

AGE	ACTIVITY	South Korea				Finland				UK				Canada				US			
		M		W		M		W		M		W		M		W		M		W	
		p25	p75	p25	p75	p25	p75	p25	p75	p25	p75	p25	p75	p25	p75	p25	p75	p25	p75	p25	p75
10-17	Sleeping	440	550	430	550	520	660	520	660	540	670	540	680	477	645	480	653	480	665	485	675
	Personal care	50	90	60	90	20	50	30	70	30	60	40	90	20	50	30	80	25	60	30	90
	Meals	40	90	40	80	40	90	40	90	40	100	40	100	30	90	30	85	23	65	25	65
	Paid work	70	300	80	340	60	270	75	295	40	430	35	320	150	460	180	450	120	393	150	450
	Study	280	590	290	610	210	390	90	380	150	410	150	420	300	440	285	460	285	469	150	480
	Housework	10	50	20	60	20	80	30	100	10	70	20	110	20	80	30	110	10	90	20	150
	Care for others	10	50	20	60	10	30	20	60	20	85	20	60	30	60	38	283	4	45	5	61
	Active leisure	30	90	30	70	50	170	40	120	60	150	40	120	90	180	60	175	63	228	45	160
	Screen-based leisure	70	250	60	220	140	350	100	280	130	375	90	270	102	305	85	240	90	243	90	244
	Other leisure	70	160	80	170	90	305	90	310	70	240	80	260	60	288	70	330	105	305	85	320
18-29	Sleeping	410	540	420	550	450	640	470	620	460	620	460	630	435	600	450	600	445	648	474	640
	Personal care	50	90	60	110	20	60	30	80	30	70	40	90	20	55	30	70	25	60	30	80
	Meals	30	80	30	80	40	90	40	90	40	110	40	100	30	75	30	80	25	70	30	70
	Paid work	340	520	310	490	330	520	300	470	400	560	340	520	415	550	385	520	350	532	284	525
	Study	180	470	120	430	110	370	100	335	170	430	120	390	180	491	150	455	120	395	94	338
	Housework	20	80	40	160	40	130	50	160	30	120	50	200	30	130	55	203	20	135	50	195
	Care for others	20	80	60	260	40	180	60	320	30	120	70	230	30	120	90	305	10	120	35	197
	Active leisure	40	110	40	90	50	130	40	110	50	120	40	100	60	170	50	120	60	180	25	108
	Screen-based leisure	90	280	70	210	110	350	80	240	100	310	80	240	90	270	60	210	90	285	90	240
	Other leisure	100	230	90	230	60	280	60	250	50	210	60	230	60	328	67	285	60	330	60	270
30-44	Sleeping	420	530	410	520	440	580	450	580	440	580	450	580	420	540	435	555	425	585	450	600
	Personal care	50	80	40	90	20	60	30	80	30	60	40	80	20	45	30	60	30	60	30	75
	Meals	40	90	50	100	50	100	50	100	40	100	40	110	30	90	30	85	30	80	30	75
	Paid work	370	550	290	480	390	530	360	490	400	560	250	490	430	585	375	523	360	590	245	513
	Study	60	240	60	200	130	360	90	290	70	260	55	155	110	450	60	305	118	344	90	295
	Housework	20	90	110	280	40	160	100	250	30	160	90	270	45	185	80	276	30	160	65	255
	Care for others	30	90	30	180	30	130	30	170	30	140	50	190	45	150	60	213	30	152	45	195
	Active leisure	40	110	50	100	40	140	40	100	50	120	40	110	60	149	35	105	30	160	27	90
	Screen-based leisure	70	210	60	180	90	250	60	190	90	260	70	200	65	220	60	180	90	270	75	230
	Other leisure	90	210	80	190	50	220	60	220	40	190	50	200	55	250	60	246	60	240	60	237
45-64	Sleeping	410	510	410	510	440	570	450	570	420	560	450	570	420	540	430	565	425	597	450	600
	Personal care	50	90	50	90	20	60	30	70	30	70	40	80	20	55	30	65	30	60	30	80
	Meals	40	100	50	100	50	100	50	110	50	120	50	120	35	95	30	90	30	80	30	75
	Paid work	330	530	250	500	390	520	360	490	360	550	270	500	415	575	375	525	330	580	285	530
	Study	50	180	60	150	70	280	75	250	50	150	30	150	60	260	60	195	90	450	90	255
	Housework	20	100	120	280	60	210	100	260	50	200	110	290	50	225	77	285	30	180	60	260
	Care for others	10	60	20	70	20	100	10	80	20	80	20	70	30	150	40	180	15	105	16	123
	Active leisure	50	140	50	120	50	150	50	130	40	130	40	120	45	150	40	120	30	180	25	105
	Screen-based leisure	80	230	70	200	110	290	70	210	110	310	90	230	95	270	75	240	115	350	90	280
	Other leisure	100	230	80	220	70	250	80	270	60	230	60	230	61	276	80	303	60	240	73	270
65+	Sleeping	440	560	450	570	470	590	490	590	450	560	450	570	450	570	470	590	475	600	475	620
	Personal care	50	90	40	90	30	80	30	80	30	80	40	90	20	60	30	70	30	60	30	90
	Meals	60	110	60	100	70	120	60	120	70	150	70	150	45	120	45	110	30	95	30	90
	Paid work	130	460	70	410	80	360	105	340	110	450	80	320	184	510	165	468	180	508	165	505
	Study	60	160	60	150	40	220	90	140	50	160	30	130	60	187	90	140	45	248	60	95
	Housework	30	120	120	260	70	230	130	300	80	220	140	300	60	265	95	290	33	180	65	260
	Care for others	20	90	20	100	10	60	20	120	10	70	20	70	45	230	30	147	10	105	10	108
	Active leisure	60	160	50	120	50	150	30	110	40	150	40	110	45	165	30	120	30	150	20	96
	Screen-based leisure	130	330	110	280	130	300	110	250	140	350	120	270	140	360	120	320	165	470	130	375
	Other leisure	100	270	100	270	120	340	140	340	90	270	110	290	120	390	155	410	119	353	120	360

Source: Multinational Time Use Study [32].

Figure A1. Gender Differences in Time Use by employment status type: employed, unemployed, retired

Source: Own calculations from the Multinational Time Use Study [32].

Notes: Estimates correspond to the coefficient for Category Men (ref=Women) from the OLS regressions by country and age groups, including the groups 45-64 and 65 and older. All regressions control by day of the week, educational attainment, employment status in 3 categories, children in the household, and union status. For Finland it is not possible to separate retired and not employed with the data.