



Has the COVID-19 pandemic in Slovenia affected gender gap in paid and unpaid work?

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ABSTRACT

Among other things, the COVID-19 pandemic has greatly affected the use of time of individuals. The burdens seem to have been unequally distributed between men and women. This paper analyses gender differences in Slovenia in time spent on paid and unpaid work before and during the lockdown. The design of our study enables us to examine the change in time spent on 14 different activities in an average workday before and during the pandemic. We find that during the pandemic, the gender gap in paid work widened, meaning that men spent even more time on paid work compared to women. Men also began to cook, devoted more time to cleaning and spent significantly more time caring for children. Therefore, the gender gap in childcare, which was marginally significant before the pandemic, became insignificant. During the pandemic, women spent relatively more time on home maintenance, which in turn led to a narrowing of the gender gap in this activity.

KEYWORDS

unpaid work, gender gap, COVID-19, time use

JEL CLASSIFICATION INDICES

J16, J21, J22

1. INTRODUCTION

Since December 2019, people around the world have been facing a large-scale disaster caused by the acute respiratory infection COVID-19 (Wankmüller 2020). After the first case

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reported in China, the virus has quickly spread to other countries around the world. The first COVID-19 case in the EU was reported in France in January 2020. Due to the rapid human-to-human transmission (Bai et al. 2020), the virus has spread rapidly in all EU member states.

In order to slow the transmission of the virus in the population, governments have taken several non-pharmaceutical measures that affected people around the world in different ways. These included shutting down the economy, closing schools and certain businesses. New social distancing rules had also affected the way people spend their time. Three channels were particularly profound. First, due to the pandemic, minor and major layoffs, furloughs, and shorter work hours reduced the amount of paid work (Adams-Prassl et al. 2020). Second, the closure of schools and childcare facilities meant that parents had to spend more time caring for their children and caring for the sick. Third, housework increased as staying predominantly at home required more time for cooking, cleaning, and other household activities that might otherwise have been outsourced. All this has led to an increased demand for unpaid work – work that is not directly remunerated and is generally unequally distributed between men and women (United Nations 2020).

Women globally perform at least two and a half times more unpaid household and care work than men (United Nations 2020). As a result, they have less time for paid work, or they work longer hours to combine paid and unpaid work. The COVID-19 pandemic put additional pressure on unpaid work, which may lead to a shift in the division of the unpaid burden between the sexes, both in favour of narrowing the gender gap and widening it. The importance of the issue during the pandemic is evidenced by an increasing number of studies examining the division of burden between the sexes. For example, Hupkau – Petrongolo (2020) and Sevilla – Smith (2020) examined the gender distribution of domestic production in the UK. Biroli et al. (2020) analysed the time spent on different activities in the Italian, British and American families. Furthermore, Craig – Churchill (2020) analysed the differences in Australia; Farré et al. (2020) in Spain; Seck et al. (2021) in 11 countries in Asia-Pacific and İlkaracan – Memiş (2021) in Turkey.

The results regarding the proportion of extra burden between sexes are inconclusive. Moreover, no study to date has examined gender differences in unpaid work during the pandemic in the context of a post-socialist country. Our study fills this gap by examining gender differences in paid and unpaid work before and during the pandemic in Slovenia – a post-socialist economy characterised by relatively low gender wage gaps and high promotion of gender equality. Second, we make a methodological contribution to current research analysing gender differences in unpaid household work. Unlike other studies that analysed time use for a limited number of activities, our work mimics the Time Use Surveys (TUS), which are commonly conducted by statistical offices (e.g., Eurostat 2020). In TUS, respondents are asked to keep a diary for 24 h a day to record the time they spend on different activities, such as paid work, household and family care, personal care, voluntary work, social life, travel and leisure activities.

We conducted such a survey in May 2020. The fresh results are valuable because similar studies have not been published for a long time (Istenič et al. 2018). Respondents had to define a schedule about the average working day in two periods: both before the pandemic and during the pandemic. Based on the collected data, this paper analyses the time spent on 14 different activities before and during the COVID-19 pandemic and the possible change in time spent on



paid and unpaid work. Next, we analysed gender differences. Thus, we also examined whether the pandemic exacerbated or reduced existing gender differences.

The remainder of this paper is organized as follows. We begin with the literature review, which focuses on the study of gender differences in unpaid work in general and during the pandemic. We also introduce the context of Slovenia. The next sections present the methodology and the data used, and the results from before and during the pandemic, focusing also on gender differences. Finally, we conclude with discussion and possible policy implications.

2. THE GENDER DIVISION OF LABOUR OVER TIME AND IN THE SLOVENIAN CONTEXT

The traditional division of labour within the family exists in countries around the globe. Men spend more time on paid work compared to women. In contrast, women spend relatively more time on unpaid domestic work (Altintas – Sullivan 2016; Miranda 2011). Estimates by Addati et al. (2018) for 66.9% of the world's working-age population show that women perform 76.2% of the total hours of unpaid care work, more than three times as much as men. Although gender gaps in the division of labour persist, they have narrowed significantly over time (Altintas – Sullivan 2016; Šeme et al. 2019). The increase in the women's employment rates results from the implementation of numerous public policies and changing attitudes towards both sexes. Gender equality initiatives and public policies aimed at balancing work and family life have become widespread in recent decades (Pascall – Lewis 2004). Policies such as flexible work arrangements, greater availability of childcare, and services for the elderly have given families more freedom to decide their participation in paid and unpaid work (Lewis et al. 2008; Saraceno – Keck 2008).

The gender gap in employment rates narrowed during the last global economic crisis in 2008. Although economic crises have historically had a relatively greater negative impact on women's employment than on men's (European Commission 2013), this was not the case during the 2008–2009 economic crisis, when the gender employment gap actually narrowed further (Cho – Newhouse 2013; Addabbo et al. 2015; Jaba et al. 2015). This decline was explained by a sharp drop in the number of workers in the sectors that employ predominantly male workers, such as construction (OECD 2012). This was also true for Slovenia. Istenič et al. (2018) showed that the gender gap in economic dependency (defined as the age-specific difference between consumption and labour income) continued to decrease during the last economic crisis.

Even though gender gaps in the division of labour are decreasing globally, the evolution of patterns is highly dependent on the institutional background of countries (Šeme et al. 2019). Gender equality has traditionally been promoted in Slovenia as a legacy of socialism. Istenič et al. (2019) showed that Slovenia has the smallest gender gap in the contribution of working-age individuals, which is strongly dependent on labour income, among 10 EU countries studied. However, when the monetised values of unpaid household work are included, the same authors show that Slovenia is the only country where women's contribution exceeds that of men. This suggests a double burden on women in Slovenia.



3. THE IMPACT OF COVID-19 PANDEMIC ON TOTAL AND GENDER-SPECIFIC UNPAID HOUSEHOLD WORK

The impact of COVID-19 on time spent on unpaid work was first studied by [Alon et al. \(2020\)](#), who, although using data on household characteristics from before the pandemic, suggested that the sudden increase in childcare would primarily affect all households with children of school age or younger and single parents. The already existing uneven distribution of the burden of unpaid work and childcare will persist during the pandemic. In the UK, US and Australia, studies showed that men shouldered more of the extra unpaid work during the pandemic and the relative differences, particularly in childcare, decreased. On the other hand, gender inequalities in the sharing of unpaid work increased in Italy and Spain, and also in the less developed countries in the Asia-Pacific region. [Seveilla – Smith \(2020\)](#) reported that British women provided the greater share of additional childcare required due to school and nursery closures. However, they additionally found that men have increased the amount of time spent on childcare even more than women, and therefore, the gender gap in childcare has narrowed, particularly in the households where men either work from home, are on leave or have lost their jobs. Similarly, for the UK, US and Italy, [Biroli et al. \(2020\)](#) showed that both genders faced an increase in childcare, but men on average reported a relatively larger increase in time spent on childcare. Men also spent more time on housework and grocery shopping. In addition, they noted a significant increase in household tensions and momentary anxiety (especially among women).

Based on Spanish data, [Farré et al. \(2020\)](#) revealed that while men spent more time on housework and childcare, women expanded unpaid work even more, leading to greater gender inequalities in paid and unpaid work in the short-run. In Italy, [Del Boca et al. \(2020\)](#) compared the number of hours spent working, doing housework, and caring for children before and during the first three months of the pandemic. They demonstrated that most of the additional responsibilities fell on women, although childcare activities are more evenly distributed than housework. A comparison of time spent on unpaid work in 2018 and 2020 in Turkey ([İlkkaracan – Memiş 2021](#)) shows that men's time spent on unpaid work increased significantly during the pandemic but was very sensitive to men's work arrangements and did not contribute to narrowing the gender gap in unpaid work. Women's unpaid work increased significantly regardless of education and employment status, pushing working women in particular to the edge of their ability to achieve an appropriate work-life balance. For the Asia-Pacific region, [Seck et al. \(2021\)](#) found for Afghanistan, Bangladesh, Cambodia, Indonesia, the Maldives, Nepal, Pakistan, Philippines, Samoa and Thailand that the COVID-19 pandemic exacerbated the pre-existing gender inequalities, with women again bearing a disproportionate burden of unpaid childcare and household work. Findings by countries are summarized in [Table 1](#).

3.1. Data and methodology

The results presented in this paper are based on a survey of Slovenian individuals conducted in early May 2020, when the first wave of restrictive measures to limit the spread of COVID-19, such as the recommendation to stay at home, was still being implemented. Individuals were asked to complete the Time Use Survey (i.e., Time Use Diary), in which they were asked to divide their time spent on various activities in a regular workday into two sub-periods: before



Table 1. Findings of the reviewed sources on gender gap in paid and unpaid work during COVID-19 pandemics

Authors	Origin	Main findings
Biroli et al. (2020)	United Kingdom, United States and Italy	Both genders faced an increase in childcare, but men on average reported spending relatively more time on childcare.
		The gender gap in childcare has narrowed.
Craig – Churchill (2020)	Australia	Women and men do more unpaid housework and care work. Men disproportionately increased childcare but no other housework.
		The gender gap in housework persisted, but the gender gap in childcare narrowed.
Del Boca et al. (2020)	Italy	Most of the additional tasks fell to women, although childcare is more evenly distributed than housework.
		The gender gap in housework persisted, but the gender gap in childcare narrowed.
Farré et al. (2020)	Spain	Both genders spent more time on unpaid work, but women did so to a greater extent.
		The gender gap in unpaid work has widened.
İlkkaracan – Memiş (2021)	Turkey	The amount of time men spend on unpaid work increased significantly during the pandemic, but is highly dependent on men's work arrangements. Women, especially those who are employed, face an alarming intensification of total workload.
		The gender gap in unpaid work has widened.
Seck et al. (2021)	Afghanistan, Bangladesh, Cambodia, Indonesia, the Maldives, Nepal, Pakistan, Philippines, Samoa, and Thailand	Women and men do more unpaid domestic and care work, but women do the greater share.
		The gender gap in unpaid work has widened.

(continued)

Table 1. Continued

Authors	Origin	Main findings
Seveilla – Smith (2020)	United Kingdom	Regardless of employment status, women provided the greater share of additional childcare, but men (in certain households) increased the amount of time spent on childcare even more than women.
		In households where men did not work, the gender gap in childcare narrowed.

Notes: *** $P < 0.001$; ** $P < 0.01$; * $P < 0.05$.

and during the COVID-19 pandemic. The pre-pandemic period was defined as the time before the announcement of the pandemic, while the period during the pandemic was defined as the time when the most restrictive non-pharmaceutical measures were implemented in the spring due to COVID-19.

The time use diary was adopted from Eurostat (2019) and Statistical Office of the Republic of Slovenia (SORS 2020). Specifically, Eurostat (2019) used 9 different broad categories: Personal care, employment, study, household and family care, voluntary work and meetings, social life and entertainment, sports and outdoor activities, hobbies, mass media and travel, and unspecified use. The time diary used by the SORS (2020) consisted of 5 broad categories: (i) personal care (sleeping, preparing meals, eating, washing, and dressing), (ii) time spent travelling, (iii) paid work (this includes seeking paid work and student work), (iv) study and (v) personal care, care for others, and household work (cleaning, laundry, ironing, gardening, caring for pets, home maintenance, hopping, childcare, care for others).

To focus particularly on the unpaid and paid work, we disaggregated some of these primary activities, meaning that some activities are based on secondary (more specific) activities reported by statistical offices. Thus, we ended up with 14 different activities: (1) sleeping, (2) preparing meals and eating, (3) washing and dressing, (4) working in a job, (5) studying, (6) cleaning, laundry, ironing, (7) gardening and pet care, (8) home maintenance and construction, (9) shopping and preparing documentation, (10) child care, (11) caring for others, (12) socialising (i.e. socialising with family, visiting and receiving visits, celebrating), (13) recreation (sports and outdoor activities), and (14) leisure (i.e. watching TV, reading, hobbies, etc.). Preparing meals and eating were reported as a single category. In presenting differences before and during the pandemic, as well as gender differences, it is assumed that this category is part of unpaid work. Although this only applies to meal preparation, we assumed that time spent on eating is similar over time and between genders. It should therefore not affect the differences over time and between genders.

The survey was conducted by an established agency that collected data from 467 people of working age (25–65 years of age). The distribution of the sample according to some of the main characteristics was as follows: 50.5% were men and 49.5% were women; 95.3% of the individuals



lived in a partnership; 67.2% had a dependent child in the household; of those who had a dependent child in the household, 42.4% had at least one child in kindergarten or primary school. 47.8% of individuals lived in an urban setting; the majority had secondary (48.2%) or tertiary (54.4%) education. 80.7% of individuals were employed, self-employed, or had some other employment status; 6.6% were unemployed; and 5.6% were retired. Of those who were working, 37.0% were working at their jobs, 22.7% were working from home, 16.3% were waiting for work, and the rest were not working for other reasons, such as childcare.

4. RESULTS

Before the pandemic, on an average workday, people spent 44% of their time on leisure and other activities, 29% on paid work and 27% on unpaid work. During the pandemic, the share of leisure (by 1 percentage point) and unpaid work (by 3 percentage points) increased, while the share of paid work decreased by 5 percentage points to 24% of time spent on paid work (see Fig. 1).

More detailed results on the average time spent on 14 different activities before and during the pandemic, regardless of gender, are presented in Table 2. Before the pandemic (second column), on an average workday, individuals spent 6.8 h sleeping, 6.7 h working, 1.6 h preparing meals and eating. On average, they spent 1.4 h on leisure and about one hour on cleaning, laundry, ironing (1.0), childcare (1.0), recreation (0.9), caring for others (0.9), washing and dressing (0.9), gardening, and caring for pets (0.9). Before the pandemic, people spent on average less than one hour per day on shopping and documenting (0.7), socializing (0.6), home maintenance and construction (0.5), and studying (0.3). Before the pandemic, the average time spent on unpaid work totalled 6.5 h.

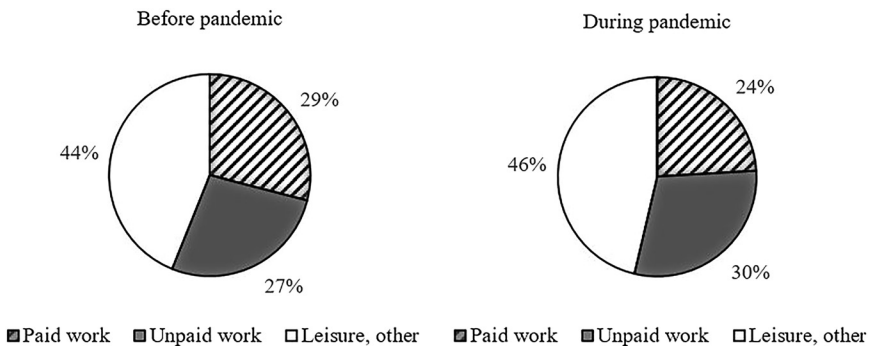


Fig. 1. Proportion of time spent on paid and unpaid work and on leisure and other activities, before and during the pandemic

Notes: Paid work includes working and studying. Unpaid work includes: preparing meals and eating; cleaning, laundry, ironing; gardening, pet care; home maintenance, construction; shopping, preparing documentation; childcare; caring for others. Leisure and other includes: sleeping, washing, dressing, socialising, recreation and leisure.



Table 2. Average time spent on different activities before and during the pandemic

	Hours spent			Relat. diff. (as % of hours spent Before)
	Before	During	Abs. diff. (During–Before)	
Sleeping	6.83	6.99	0.16	2.30***
Preparing meals, eating	1.57	1.65	0.08	5.33*
Washing, dressing	0.85	0.85	-0.01	-0.63
Working in a job	6.73	5.42	-1.31	-19.48***
Cleaning, laundry, ironing	1.04	1.14	0.10	9.70**
Gardening, pet care	0.85	0.98	0.13	14.72***
Home maintenance, construction	0.51	0.62	0.12	22.83***
Shopping, preparing documentation	0.73	0.69	-0.04	-5.72
Studying	0.27	0.40	0.13	48.01**
Childcare	0.98	1.08	0.10	10.29
Caring for others	0.85	1.00	0.16	18.24***
Socialising	0.60	0.74	0.14	23.77***
Recreation	0.94	1.06	0.12	13.08***
Leisure	1.37	1.56	0.19	14.17**

Notes: *** $P < 0.001$; ** $P < 0.01$; * $P < 0.05$.

Absolute difference by activity in the sub-period (during or before) is defined as the difference between the average time spent during minus the average time spent before the pandemic. Relative difference by activity is defined as the absolute difference during minus before the pandemic relative to the average time spent before the pandemic.

The third column shows the average time spent on activities during the pandemic. For comparison, the absolute difference by activity (fourth column) is calculated as the difference in average time spent during minus average time spent before the pandemic, and the relative difference (last column) is calculated as the absolute difference relative to average time spent before the pandemic. During the pandemic, time spent increased primarily on studying (for 48.0%), home maintenance (for 22.8%), and socializing (for 23.8%). Smaller relative increases in the time spent during the pandemic were reported for caring for others (for 18.2%), gardening and caring for pets (for 14.7%), leisure (for 14.2%), and sleeping (for 2.3%). This extra time was compensated by much less work – during the pandemic, people worked on average 20% less than before the pandemic, which means one and a half hours less paid work. Further, 1.7 h were spent on eating and preparing meals, while an average of 5.5 h were spent on other household chores. The change in household work increased by almost 45 min per day.



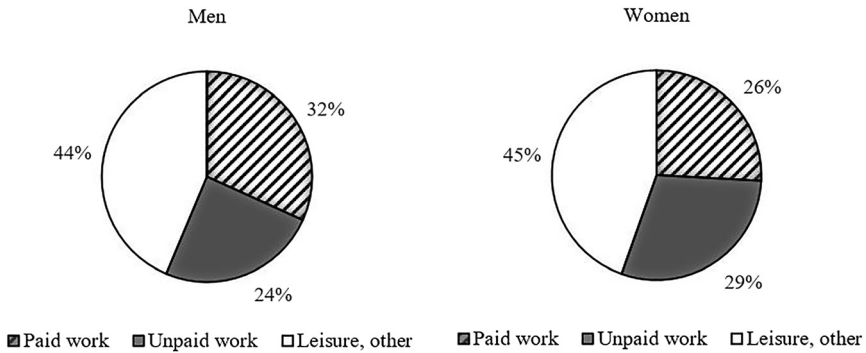


Fig. 2. Proportion of time spent by men and women on paid and unpaid work and on leisure and other activities before the pandemic

Notes: Paid work includes working and studying. Unpaid work includes: preparing meals and eating; cleaning, laundry, ironing; gardening, pet care; home maintenance, construction; shopping, preparing documentation; childcare; caring for others. Leisure and other includes: sleeping, washing, dressing, socialising, recreation and leisure.

Focusing on the differences in the time spent between men and women, we first present in two figures the time spent on three groups of activities: paid work, unpaid work and leisure and other activities. In Fig. 2, we present the average proportion of time spent by men and women on the three groups of activities *before* the pandemic and in Fig. 3, after the pandemic. Before

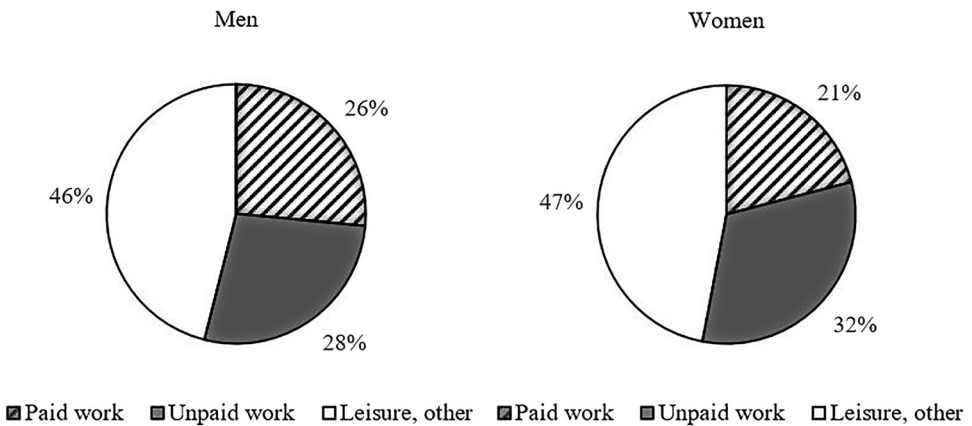


Fig. 3. Proportion of time spent by men and women on paid and unpaid work and on leisure and other activities during the pandemic

Notes: Paid work includes working and studying. Unpaid work includes: preparing meals and eating; cleaning, laundry, ironing; gardening, pet care; home maintenance, construction; shopping, preparing documentation; childcare; caring for others. Leisure and other includes: sleeping, washing, dressing, socialising, recreation and leisure.



the pandemic, men spent on average 32% of their time on paid work, compared to 26% spent by women. The opposite is true for unpaid work – women spent more time on unpaid work on average (29%), while men spent less time on unpaid work (24%).

During the pandemic, men spent an average of 26% of their time in paid work, again more than women, who spent 21%. Although men also spent on average less time than women on unpaid work during the pandemic, the increase in unpaid work during the pandemic was 4 percentage points for both men and women, closing the gender gap in time spent on unpaid work.

To investigate the differences in specific activities, two tables are presented. To illustrate the differences between the sexes in the pre-pandemic period, Table 3 shows the average time spent by men and women and the absolute and relative difference before the pandemic for each activity separately, while Table 4 shows the same indicators for the period during the pandemic, again for each activity separately. The absolute difference by activity in each sub-period (before and during) is defined as the average time spent by men minus the average time spent by women. The relative difference by activity in the sub-period (before or during) is defined as the

Table 3. Differences in time spent between men and women before the pandemic

	Hours spent			Relat. diff. (as % of total population time spent)
	Men	Women	Abs. diff. (Men–Women)	
Sleeping	6.81	6.86	-0.05	-0.79
Preparing meals, eating	1.27	1.87	-0.60	-38.45***
Washing, dressing	0.81	0.90	-0.10	-11.21*
Working in a job	7.44	5.98	1.45	21.59***
Cleaning, laundry, ironing	0.81	1.27	-0.46	-44.81***
Gardening, pet care	0.83	0.87	-0.04	-4.35
Home maintenance construction	0.69	0.31	0.38	75.48***
Shopping, preparing documentation	0.66	0.78	-0.12	-16.75*
Studying	0.20	0.33	-0.13	-45.76
Childcare	0.81	1.11	-0.29	-29.96†
Caring for others	0.83	0.85	-0.02	-2.88
Socialising	0.52	0.66	-0.15	-24.33**
Recreation	0.93	0.94	-0.01	-0.75
Leisure	1.43	1.29	0.14	10.16

Notes: *** $P < 0.001$; ** $P < 0.01$; * $P < 0.05$; † $P < 0.1$.



Table 4. Differences in time spent between men and women during the pandemic

	Hours spent			Relat. diff. (as % of total population time spent)
	Men	Women	Abs. diff. (Men-Women)	
Sleeping	6.98	7.00	-0.03	-0.36
Preparing meals, eating	1.34	1.97	-0.63	-37.91***
Washing, dressing	0.80	0.90	-0.10	-11.42**
Working in a job	6.11	4.71	1.40	25.86***
Cleaning, laundry, ironing	0.92	1.36	-0.45	-39.53***
Gardening, pet care	0.96	0.99	-0.03	-3.26
Home maintenance construction	0.82	0.41	0.41	65.78***
Shopping, preparing documentation	0.62	0.76	-0.14	-20.88**
Studying	0.31	0.51	-0.20	-49.42**
Childcare	1.03	1.14	-0.11	-10.35
Caring for others	0.98	1.03	-0.05	-5.11
Socialising	0.65	0.84	-0.18	-24.49***
Recreation	1.05	1.07	-0.02	-1.82
Leisure	1.69	1.44	0.25	15.96

Notes: *** $P < 0.001$; ** $P < 0.01$.

absolute difference between men and women, relative to the average time spent by the total (non-disaggregated) sample.

Before the pandemic, men worked an average of 1.5 h more than women in the labour market, with the gender difference accounting for 21.6% of the total time (not disaggregated by gender) spent on paid work. Men also spent significantly more time on home maintenance (23 min on average), with the gender difference accounting for 75% of the total average time spent on maintenance. On the other hand, women spent significantly more time preparing meals (about half an hour), with the gender difference accounting for 38.5%, and cleaning (the absolute difference was 0.5 h), with the gender difference accounting for 44.8% of the total average time spent on this activity. Before the pandemic, the gender difference in the time spent on childcare was marginally significant, with women spending more time on childcare. The gender difference accounted for 30% of the total time spent on childcare. We found no significant gender differences in time spent on sleeping, recreation, leisure, gardening and caring for pets.

During the pandemic (Table 4), men again spent significantly more time on paid work, an average of one hour and 24 min, with the gender difference accounting for 25.9% of the total average time spent on paid work (not disaggregated by gender). Men also spent more time on home maintenance and construction work (about 25 min more per day). On the other hand, women spent more time preparing meals (about 38 min more per day) and cleaning (about 27



min more per day). The gender difference accounts for 39.9% of the total non-disaggregated average time spent on meal preparation and 39.5% of the total non-disaggregated average time spent on cleaning, laundry and ironing. As can also be seen in Table 3 for the pre-pandemic period, women spent more time on average studying, socializing, and shopping than men during the pandemic. Importantly, we also found no significant difference between men and women in time spent caring for children during the pandemic, which was marginally significant before. However, there is still no significant difference between genders in the amount of time spent caring for others, as well as the amount of sleep and time spent on recreation and leisure.

Figure 4 shows the absolute differences in gender gaps over time – that is, before and during the pandemic. The figure shows that the gender gap widened even further in paid work (men work much more than women), where the gender gap increased by 4.3 percentage points. The gender gaps in cooking and especially cleaning have narrowed (by 0.5 and 5.3 percentage points, respectively). In addition, women have started to spend more time on home maintenance (a typical task predominantly performed by men), leading to a large reduction in the gender gap in home maintenance (by 9.7 percentage points). On the other hand, there were larger gender gaps in shopping, caring for others, studying and recreation, which are typically performed to a greater extent by women. The gender gap in leisure time, which is typically spent more by men, widened by 5.8 percentage points. However, the figure shows that men spent significantly more time caring for children, resulting in a large decrease of 19.6 percentage points in the gender gap in childcare.

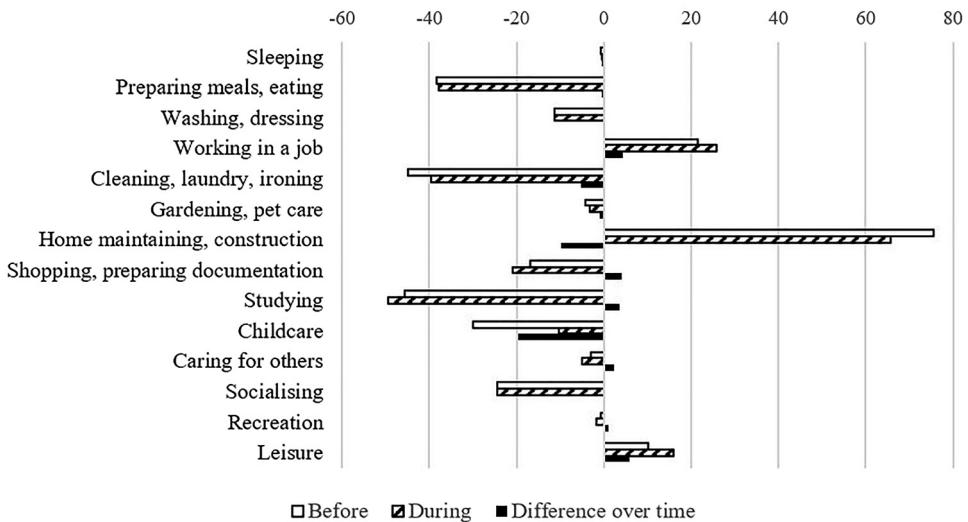


Fig. 4. Relative differences between men and women in different activities before and during the pandemic (in %) and differences in gender gap over time (in percentage points)

Notes: Relative difference by activity in the sub-period (before or during) is defined as the difference between the average time spent by men and women, relative to the average time spent by the total (non-disaggregated) sample. Difference over time is defined as the absolute difference between the sex differences in both sub-periods (relative difference before minus relative difference during the pandemic).



5. DISCUSSION

Before the pandemic, we found that individuals spent an average of 6.7 h working, 1.6 h preparing meals and eating, and 5.5 h on (unpaid) household chores. The remaining time was spent on sleeping, washing and dressing, studying, recreation and leisure. The non-pharmaceutical measures imposed (including the closure of schools, childcare facilities, unnecessary shops and social distancing) limited the ability to outsource unpaid work and placed an additional burden on individuals. We found that unpaid work increased as a result of the pandemic, which was offset by less work in the labour market. On average, we found that the mean change in hours worked was 1.3 h less per day or 6.5 h less per working week, which is consistent with the estimates for the UK (Adams-Prassl et al. 2020). On the other hand, our paper shows that during the so-called first wave of the COVID-19 pandemic in Europe (Spring 2020), unpaid housework increased by 10%.

If we focus on the gender differences in paid and unpaid work before the pandemic, we find that the Slovenia men worked more on average in the paid market – on average 1.5 h more than women. On the other hand, women spent 1.2 h more on preparing meals and other (unpaid) work in the household. This is consistent with the findings of Miranda (2011) and Altintas – Sullivan (2016).

During the pandemic, we found that the additional unpaid work burdened everyone; men again spent significantly more time doing paid work, further widening the gender gap in paid work. This contrasts with the findings from previous recessions (see, for example, Addabbo et al. 2015), but not with the findings from pandemic research on COVID-19 (Ferre et al. 2020). In terms of unpaid work, we found that the gender gap has narrowed, both for male-dominated activities (such as home maintenance) and female-dominated activities (e.g., cleaning, laundry and childcare). For childcare specifically, we found that, on average, time spent on childcare has increased for both genders, men's time spent on childcare has increased disproportionately compared to women, and the gender gap in childcare has narrowed (as reported by Seveilla – Smith (2019), Alon et al. (2020) and Craig – Churchill (2020)).

Evidence from Slovenia therefore suggests that the gender gaps in time spent on paid and unpaid work persist in Slovenia (men worked more in the labour market and women shouldered more unpaid work), with the COVID-19 pandemic narrowing the gap in unpaid work, particularly childcare, but widening the gap in paid work.

6. CONCLUSIONS

In the Spring of 2020, when the pandemic COVID-19 was announced and governments implemented a range of non-pharmaceutical measures, people were forced to change the way they spent their time. Changes in time spent on different activities were unequally distributed between men and women. Previous, albeit limited, research on the impact of the COVID-19 pandemic on the gender division of paid and unpaid work was inconclusive and country-specific. Therefore, this paper examines the impact of the COVID-19 pandemic on the time individuals spend on different activities in an average working day. The case of Slovenia provides an example of a post-socialist country where gender equality has traditionally been promoted. By analysing the time diaries of 467 individuals in May 2020 who recorded their time spent on



various activities during the pandemic and retrospectively for the pre-pandemic period, we also contributed to a limited number of time-use surveys that are not regularly collected.

Our results show that during the pandemic there was a statistically significant increase in sleeping, cooking, cleaning, home maintenance, and caring for others. In addition, individuals spent more time studying and increased their leisure time. This additional time was offset by much less work – on average, individuals worked 20% less during the pandemic than before the pandemic.

Looking at gender differences, we found that men typically worked more in the labour market before the pandemic – on average 1.5 h more than women. Men also spent significantly more time on home maintenance, with the gender difference accounting for 75% of the total (non-disaggregated) average time spent on maintenance. On the other hand, women spent significantly more time on cooking, cleaning and other household activities. During the pandemic, the gender gap in paid work widened (men work much more than women). Also, men started cooking more, and especially, cleaning more. Whereas women started spending more time on home maintenance. On the other hand, there were larger gender differences in grocery shopping. Men still spent more time resting, but they spent significantly more time caring for children, where the gender difference that was marginally significant before the pandemic actually became insignificant.

Based on the results of this study, we can observe an impact of COVID-19 on reducing the gender gap in unpaid work, which we consider an important factor in the implementation of active labour market policies, for example, increasing women's labour force participation. However, policy makers should bear in mind that this may only be a short-term observation. Therefore, it is important that we measure the time spent by men and women on different activities on a regular basis, including after the pandemic, in order to find out whether a crisis such as the COVID-19 pandemic can have a long-term effect on the gender division of labour in the family.

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