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Work in the time of Corona: Gender differential effects of the COVID-19 pandemic on parent's working hours in Uruguay

MA Thesis in Public Policy

Central European University Private University

Vienna

June 2021

Work in the time of Corona: Gender differential effects of the COVID-19 pandemic on parent's working hours in Uruguay

by

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Thesis submitted to the School of Public Policy, Central European University Private University, Vienna, in partial fulfillment of the requirements of the Master of Arts in Public Policy.

Accepted in conformance with the standards of the CEU.

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Author's declaration

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Abstract

Uruguay has faced the current COVID-19 pandemic under particular conditions. Without imposing enforced mobility restriction policies, but maintaining the total or partial closure of educational centers for more than a year, the pandemic has imposed new challenges in the gender distribution of work within households. This study explores the results from a survey conducted by UN Women and UNICEF during the last week of April 2020 with the objective of analyzing the early effects of the pandemic on parent's paid and unpaid working hours in Uruguay. Findings indicate a larger decrease in paid work compared to the increase in unpaid work, being mothers more affected than fathers. However, the analysis shows that the differences by gender are not significant, indicating that the characteristics that are significantly associated with the working pattern changes are: the age of the youngest children and parents' educational level. The study found a significant decrease in paid working hours of parents with school-age children, consistent with the policy of school closures during the pandemic. At the same time, in these households, it is mothers who experience a larger increase in unpaid work hours, compared to fathers. Finally, it is middle and highly educated parents who increase unpaid work hours the most, suggesting that during the pandemic gender gaps in unpaid work have narrowed for highly educated parents compared to low educated ones.

Acknowledgements

I would like to express my gratitude to my supervisor Anand Murugesan, especially for encouraging me to enjoy the process of writing this thesis. Secondly, my warmest thanks to my friend Martina Querejeta, for her invaluable contributions to this study. Finally, to my little Caetano, a continuous source of inspiration in all aspects of my life.

Table of contents

1.	Introduction1
2.	Uruguay's experience with COVID-195
3.	Theory & Hypothesis
	3.1. Unequal impacts of the crisis
	3.2. Potential mechanisms behind the effects
	3.3. Gender division of paid and unpaid work in Uruguay14
	3.4. Hypothesis
4.	Research Design17
	4.1. Main concepts
	4.1.1. Working hours17
	4.1.2. Gender gaps in the labor market
	4.2. Data & Descriptive statistics
	4.3. Methodology
5.	Results24
	5.1. Main results
	5.2. Parents with school-age children
6.	Discussion
	6.1. Limitations
	6.2. Policy implications

7.	Conclusion	.39
Bilbi	iography	.40
App	endix	.44

List of Figures

Figure 1 - Potential causal mechanism for the greater impact of the COVID-19 on women14
Figure 2 – Daily hours spent on paid, unpaid and total work, before and during COVID-19 and
percentage gender gaps22
Figure 3 - Respondent's means and 95 percent confidence intervals of changes in daily hours
dedicated to paid and unpaid work during the pandemic, by gender and level of education28
Figure 4 - Survey questions related to variables of interest

List of tables

Table 1 - Sample description (proportions) 19
Table 2 - Descriptive statistics of main variables 21
Table 3 - Respondent's mean daily hours spent on paid, unpaid and total work, before and
during COVID-1922
Table 4 - OLS regression estimates on changes in hours devoted to paid, unpaid and total work
during the pandemic
Table 5- Linear regression models on change in hours dedicated to paid, unpaid and total work,
with interaction terms of gender and education27
Table 6 - OLS regression estimates on changes in hours devoted to school support, household
work and childcare activities, during the pandemic lockdown
Table 7 - Linear regression models on change in hours dedicated to paid, unpaid and total work,
with interaction terms of gender and age of children45
Table 8 - Linear regression models on change in hours dedicated to paid, unpaid and total work,
with interaction terms of gender and type of employment

1. Introduction

The recession in the world economy caused by the COVID-19 pandemic has led to the closure of companies, the loss of millions of jobs and changes in the dynamics of the labor markets (Hupkau & Petrongolo, 2020). Many scholars argue that contrary to what happened in recent crisis -where male-dominated sectors were the most affected-, in this case, the implementation of the containment measures -that have proven to be effective contracting the spread of the virus-, have had a greater impact on sectors of the economy with a strongly female presence such as health, education, care services and domestic work (Zamarro et al., 2020; Alon et al., 2020; Hupkau & Petrongolo, 2020; Del Boca et al, 2020). Likewise, in a global perspective, and considering occupational segregation, women appear to be at a higher risk of losing their jobs or experiencing an income reduction during this crisis (OECD, 2020). Consequently, some literature seems to agree that the impacts of the crisis would not be equally distributed between men and women, suggesting greater impacts on the latter (Capurro et al., 2020; Alon et al., 2020; Collins et al., 2020). The closure of schools and childcare facilities (affecting about 1 billion children globally in the first half of 2020), physical distancing measures that prevents contact with relatives and home care workers, and intensified domestic work, are increasing the burden of unpaid care work for families with children, affecting women disproportionally because of the role they have traditionally played as caregivers (Zamarro et al., 2020, Alon et al., 2020; ILO, 2021). In this sense, several studies are already showing the consequences of the overburdening of unpaid care work, resulting in a reduction in the number of paid working hours by women, with specially incidence among mothers (Zamarro et al., 2020, Alon et al., 2020; Collins et al., 2020). In this scenario, several governments around the world are implementing different policies to ensure that existing gender inequalities in the labor market are not further deepened.

However, what the various studies conducted on the effects of the pandemic on gender gaps in the labor market show is that these effects are not homogeneous around the world and depend on a variety of factors at play. Overall, what seems clear is that COVID-19 has affected the internal dynamics of households and certainly the decision-making processes linked to the division of paid and unpaid work. Understanding the gender inequalities in relation to the distribution of work and developing public policies to address this, seems crucial, as the time that women devote to unpaid care work inevitably reduces the time they spend on other activities, such as paid work, learning, recreation or even resting, placing women in a situation of greater vulnerability and poverty (Bittman, 2005, in Amarante & Rossel, 2017). In addition, the way in which time is distributed between paid work and household responsibilities during the pandemic may have medium- and long-term repercussions in terms of gender inequality, representing a step backward in the progress made in terms of women's participation in the labor market. Experience from previous crises shows that in general women who step back from paid work during a crisis, have greater difficulty re-entering the labor market once the crisis has passed (Sevilla et al., 2020). Likewise, empirical studies also indicates that the differential gender effects of the pandemic on the labor market can be affected by individual and household characteristics, such as educational level, household composition, type of work, among others, reinforcing the importance of analyzing each specific case in order to design appropriate public policies.

In this context, this study aims to analyze how the COVID-19 pandemic has affected working hours of fathers and mothers (of children under 18 years old), in the context of Uruguay. The main objective of this study is to provide evidence for a better diagnosis of the gender differential effects of the pandemic in paid and unpaid work among parents and to provide inputs for the design of public policies that avoid aggravating the gender inequalities already existing in the pre-pandemic situation. While the consequences of an ongoing pandemic are difficult to measure, a survey organized by UNICEF and UN Women in April 2020 provides novel data on the early effects of COVID-19 on paid and unpaid work. In this sense, this study aims to contribute to the literature on the gender effects of the pandemic in the labor market for developing countries, considering that the existing studies for these countries are much scarcer than for developed ones, and particularly scarce for the Latin American context.

Analyzing the Uruguayan case seems relevant for a variety of reasons. In the first place, within the Latin American landscape, Uruguay has been characterized for having a prominent place regarding gender equality, showing a relatively high level of women's participation in the labor market, which has increased considerably from 41.4% in 1986 to 54.9% in 2019 (Querejeta, 2020). Moreover, the country stands out in the region for its relatively mature social protection system, with "... a long tradition in health services, labor market regulations, and a noncontributory provision for the elderly and families with children" (Amarante & Rossel, 2017, p.15). In this sense, during the last decades the country expanded the provision of public childcare services for low-income families, have created the National Care System, and a parental component was included for maternity leave in 2013 (Amarante & Rossel, 2017). However, although gender gaps have decreased since 1980s, women still face occupational segregation and wage discrimination, and according to the latest Time Use Survey available (2013) are responsible for 70% of total unpaid work in the country (Espino, 2013; Batthyány et al., 2015). In addition to this, evidence suggest that the gender gap in labor force participation is deeply connected with working decisions of mothers, as it " ... increases with the number of children due to a reduction of female employment" (Querejeta & Bucheli, 2021. p.6). Under this framework, analyzing the repercussions of the pandemic on the labor market, with a specific focus on the differential effects between fathers and mothers, seems key to analyze possible setbacks in terms of gender equality.

Secondly, the pandemic containment measures implemented in the country, aimed at reducing mobility and creating social distancing, differed greatly from the policies applied in other countries in the region. Without applying required "stay-at-home" measures for the population but closing schools and daycare facilities for all levels in the initial months of the pandemic, Uruguay has experienced the pandemic with very particular conditions that could imply different consequences in the labor market.

Last but not least, at the time of writing this paper, Uruguay has been ranked among the top three countries worldwide in number of deaths due to COVID-19 per million people, for the last 4 weeks¹. Going through the worst weeks in terms of number of COVID-19 confirmed cases, a year after the first case was detected, the country is still far away from visualizing the end of the pandemic.

To achieve the objectives of this study, the rest of the document is structured as follows: in the next chapter, the theory on which this study is based is presented and the hypotheses are set out. Chapter two provides a brief overview of Uruguay's experience with COVID-19 and the policies adopted as a result. The third chapter introduces the data and research design. In chapter four, the main results are presented and they are discussed in chapter five. Finally, the conclusion is drawn in chapter six.

¹ https://ourworldindata.org/covid-deaths

2. Uruguay's experience with COVID-19

The coronavirus pandemic (also known as the COVID-19 pandemic) is an ongoing pandemic declared by the World Health Organization (WHO) on 11th March 2020. This pandemic is caused by the spread of the coronavirus disease 2019 (COVID-19), a "... highly infectious respiratory disease caused by a new coronavirus known as SARS-CoV-2 (severe acute respiratory syndrome-coronavirus-2)" (Baloch et al., 2020, p.1). In order to contain or slow the spread of the virus, most countries around the world have implemented social isolation and mobility restriction measures, known as "containment measures" (Deb et al., 2020, p.4).

13th March 2020 will be remembered in Uruguay as the day of the arrival of SARS-CoV-2 in the country. The consequent declaration of health emergency had a strong impact on Uruguayan households due to the containment measures rapidly implemented by the government. Although there was no general declaration of mandatory quarantine, during the first weeks after COVID-19 entered the country, isolation measures were recommended, the circulation of public transport was restricted, public events were cancelled, a partial closure of the borders was established, people over 65 years of age were urged to comply with preventive quarantine, and classes were suspended at all levels of education in both public and private institutions (Espino & De Los Santos, 2020). In relation with this last policy, the health emergency left approximately 800,000 students without face-to-face classes at all levels and generated the need to think quickly about teaching-learning strategies in virtual format (Failache et al., 2020).

The combination of the external shock, caused by the international spread of the coronavirus, and the social distancing measures applied, brought prompt economic and social consequences for Uruguay, whose economy experienced a 1.4 % decline in GDP in the first quarter of 2020 compared to the same period of 2019 (Capurro et al., 2020; Mordecki, 2020). In addition, the

disease arrived in Uruguay in a context of reduced (or not at all) economic growth and rising unemployment, coupled with the end of the cycle of poverty reduction and income redistribution (De Rosa et al., 2020). Under this scenario, the pandemic has shown to have very negative effects for the country in terms of employment, income, poverty and inequality (Capurro et al., 2020). At the beginning of the crisis among the sectors of the economy most impacted were the labor-intensive ones: administrative and support services, real estate activities, accommodation and food services, commerce and manufacturing industries (Espino & De Los Santos, 2020). The effects on the labor market were quickly noticeable with an exponential growth in unemployment insurance claims, which in March 2020 were eight times higher in number than the monthly average of the last two years (Capurro et al., 2020). According to estimates by the Institute of Economics in the months of March, April and May 2020 there were around 100,000 fewer employed people than in February of the same year (Mordecki, 2020).

In terms of public policies implemented by the government to mitigate the deterioration of the population's living conditions, Uruguay has been characterized by having done one of the lowest fiscal efforts at the regional and international level. While the regional average fiscal effort is 3.9 % of GDP, in Uruguay it has been approximately 1.4 % (ECLAC, 2020). Among the measures applied in relation to employment, the following stand out: the recommendation to implement teleworking, both at public and private level, the flexibilization of the use of unemployment insurance, the establishment of special sickness benefits for workers over 65 years of age, and other measures to support small and medium companies (mainly tax and social contributions deferrals and flexible loans) (Espino & De Los Santos, 2020). In this context, several studies point to the insufficiency of these policies to mitigate the negative consequences of a crisis that has implied an economic contraction of 5.9 % of Uruguay's GDP by 2020 (Capurro et al., 2020; Mordecki, 2020). Likewise, data recently published by the

National Institute of Statistics show that monetary poverty stood at 11.3 % in 2020, which implies that there are 100,000 new people living in poverty in the country (Leites, 2021).

Finally, in terms of health crisis management, Uruguay is a particular case worldwide. Until a few months ago, the country combined a comparatively low (although increasing) prevalence of the disease with non-coercive policies of physical distancing but maintaining, at least partially, the closure of educational centers (Salas & Vigorito, 2020). However, one year after the arrival of the virus in the country, Uruguay is going through its worst moment in terms of number of infections and deaths caused by the disease, remaining during the last four weeks in the top 3 countries with the highest number of deaths per million inhabitants. In this scenario, the country continues not to apply mandatory mobility restriction measures and the education sector, with schools and childcare centers currently closed, will partially return to face-to-face attendance in the coming weeks.

3. Theory & Hypothesis

This section presents the two main assumptions of this study that underlie the hypothesis:

- The first one, is that the COVID-19 pandemic and the containment measures imposed in consequence, have affected the number of hours that women and men spend in both paid and unpaid domestic and care work and the way in which these tasks are distributed within households.
- Secondly, this thesis assumes that the above-mentioned effects of the pandemic in working hours have been different for mothers and fathers.

3.1. Unequal impacts of the crisis

It has already become evident that the health crisis caused by the COVID-19 pandemic has generated a global economic crisis of yet unknown magnitude (Alon et al., 2020). In this context, many scholars have argued that the impacts of the crisis are not equally distributed between men and women, suggesting that there are several reasons to believe that the crisis has hit women harder (Capurro et al., 2020; Zamarro et al., 2020; Alon et al., 2020; Collins et al., 2020). Firstly, unlike recent economic crises experienced worldwide, which affected strongly male-dominated sector (such as manufacturing or construction), the crisis of the COVID-19 has had an impact mainly on sectors of the economy with a strong female presence (Zamarro et al., 2020; Alon et al., 2020; Hupkau & Petrongolo, 2020, Del Boca et al., 2020). The impact on highly feminized sectors, such as health, education and care sector, placed women in a leading role in tackling the crisis, while exposing them to a greater risk of infection (OECD, 2020). Secondly, among the most common containment measures adopted in different countries has been the closure of schools and day care facilities. Likewise, physical distancing measures that prevents contact with relatives and home care workers, and intensified domestic

work, are increasing the burden of unpaid care work for families with children (Zamarro et al, 2020, Alon et al., 2020; ILO, 2021). According to ILO (2018), in a global perspective, "women perform 76.2 % of the total amount of unpaid care work, 3.2 times more time than men" (p.24). In this respect, it is expected that women will be the most affected by this overburden during the pandemic (Zamarro et al, 2020, Alon et al., 2020; Collins et al., 2020). Lastly, in this crisis that has mainly affected the service sector, women also face a significant risk of losing their jobs or having an income reduction, while at the same time they are more exposed to situations of exploitation or domestic violence (OECD, 2020).

Overall, what seems clear is that the COVID-19 has affected the internal dynamics of households and it could certainly "(...) reshape how families divide paid work and unpaid household responsibilities, with many fathers now at home all day with more exposure to the scale and scope of housework and childcare" (Sevilla et al., 2020, p.2). Balance between increased household production activities and paid work, "(...) could increase stress, reduced sleep and leisure time, or induce a decrease (or increase) in work hours and work productivity" (Heggeness, 2020, p.1057). In this situation, everything seems to indicate that people with less bargaining power within households (generally women) will be the ones who would acquire the majority of the additional domestic tasks (Heggeness, 2020).

In this scenario, numerous recent studies have attempted to analyze the differential impacts of the COVID-19 crisis on women and men and the possible repercussions in terms of gender equality. In the case of the United States, Zamarro et al (2020), analyze the US labor market and finds the following COVID-19's effects: a greater loss of employment among non-college-educated women, and a larger burden of domestic work dedicated to childcare among women. Following this study, Collins et al. (2020), focus on the gender gap effects of COVID-19 and finds that "…mothers' work hours fell over five times as much as fathers' between March and

April 2020", increasing the gender gap in working hours by 20-50 %(p.2). In the same line, Zamarro & Prados (2021), states that "overall, 42% of working mothers declared to have reduced their working hours as compared with 30% of working fathers (p.17).

The Institute for Fiscal Studies (2020), conducted a research to analyze the effects of the crisis on mothers and fathers in two-parent opposite-gender families in the UK. Among the main findings of the study, they highlight a greater negative impact in terms of employment on mothers compared to fathers; mothers employed before the crisis "(...) are 9 percentage points less likely to be currently working for pay (either remotely or on-site) than fathers" (p.3). Moreover, among mothers who remain employed during the crisis, they tend to work an average of 68% of fathers' working hours (in 2014-2015 this figure was 73%), increasing the hours they spend on care and household tasks. Finally, the authors find that during the lockdown, fathers have almost doubled the time spent on childcare (Sevilla et al., 2020). Complementing this study, a research by Hupkau & Petrongolo (2020) for the case of the UK, indicates that "while the overall gender gap in housework hours has fallen during Covid-19, it remains more sensitive to the presence of children, own employment status and partner's employment status for women than for men" (p.11).

In the same vein, a study by Craig & Churchill (2020) for Australia shows an increase in the burden of domestic work for both mothers and fathers. Although mothers take on most of the extra burden of unpaid work, the gender gaps in unpaid work decrease because men increase their time spent on childcare by a greater proportion in relative terms (Craig & Churchill, 2020).

A study by Sunyu Ham (2021) analyzing the effects of the pandemic on the South Korean labor market shows that pre-existing gender gaps, are deepening. The study shows more unemployment and leaves of absence for women than for men, with a particular incidence for married women workers compared to unmarried women workers. Paradoxically this is not the situation for men, as "(...) married men workers experienced fewer of these outcomes than unmarried men workers" (p.133).

Ilkkaracan & Memiş (2021) analyze the working hour under lockdown for men and women in Turkey and find that although men increase their participation in domestic work, the gender gap in unpaid work increases. In contrast, gender gaps in paid work decreases due to a larger fall in employment for men compared to women.

In the same vein, a study for the case of Canada finds that "(...) gender employment gaps among parents of young children widened considerably between February and May 2020, net of differences in job and personal characteristics" (Qian & Fuller, 2021, p.S89). Likewise, gender gaps are also larger among less-educated parents and for parents with elementary school-age children (Qian & Fuller, 2021).

Another study published in 2021 for the case of Hungary shows that during the pandemic the increase in relative terms of men's participation in childcare tasks (by 35%) is approximately equal to the relative increase of women. However, given that women performed a larger share of care work before the crisis, the gender gaps in hours spent on child care have increased in absolute work hours terms. The study also suggests that " (...) in Hungary the pandemic increased gender inequality the most among the highest educated" (Fodor et al., 2021, p.S95).

A recent study for Spain analyses the division of labor in the household during the pandemic among heterosexual couples with children. Among the main findings, the authors highlight that although women continue to take on more unpaid work than men, the lockdown has allowed some couples to modify the traditional model of division of tasks in the household. In this sense, the possibility of telecommuting and greater flexibility in working conditions has made it easier for high-resource women to achieve a more equal division of labor (Seiz, 2021). Finally, one of the few studies available on the impacts of the pandemic in developing countries, analyzes 17 countries in Latin America and the Caribbean, finding significant impacts of the pandemic on job losses and business closures. Among the main findings, the study identifies informal workers, with particular emphasis on women, as the main ones impacted by the pandemic (Bottan, 2020).

3.2. Potential mechanisms behind the effects

In a recent study, Alon et al. (2020), attempt to decompose the channels through which the COVID-19 pandemic is affecting gender inequality. As it is shown in Figure 1 below, according to the authors, the unequal impacts of Covid-19 on gender seem to be explained by two main factors: on the one hand, by the effect of the crisis on different sectors of the economy that are largely feminized; on the other hand, by the greater burden of unpaid work that women have to deal with related to household childcare.

In relation to employment, the authors propose two factors to explain the differential effects of the crisis in the different sectors of activity. The first to be considered is the repercussions in terms of the demand for the sector's output, differentiating between sectors that have been considered "essential" and sectors that have seen their activities paralyzed, like restaurants and hospitality. The other critical factor is the possibility of continuing the sector's activity through telecommuting.

Regarding the second factor, Alon et al., 2020 also suggest two elements with implications for those who will bear the greatest costs of childcare during the pandemic: it will depend on how much work flexibility each parent has, and it will also rely on the current childcare arrangements within the household (Alon et al., 2020). This last element could be affected according to the authors by relative income, distribution of bargaining power among its members and the traditional role models that prevails in the family. Consequently, based in the

existing division of childcare duties in most families, women are likely to be the most affected by the increased burden of childcare work as a result of the crisis.

As the Global Gender Gap Report 2020 states, "there is a negative relationship between women's relative amount of time they spend on unpaid domestic work and economic participation and opportunity gender gaps" (p.11). Consequently, the increased burden of unpaid domestic work caused by the COVID-19 pandemic is expected to have negative effects on parents' participation in the labor market, with special incidence among working mothers who are the ones that usually carry a heavier load of childcare needs (Collins et al., 2020; Zamarro et al., 2020).

Figure 1 - Potential causal mechanism for the greater impact of the COVID-19 on women



Source: author's elaboration based on Alon et al. (2020)

3.3. Gender division of paid and unpaid work in Uruguay

Within the Latin American landscape, Uruguay has been characterized for having a prominent place regarding gender equality, showing a relatively high level of women's participation in the labor market, which has increased considerably from 41.4% in 1986 to 54.9% in 2019 (Querejeta, 2020). According to data from the National Institute of Statistics, the gender gap in

terms of employment rate in 2019 was almost 16 percentage points, and the unemployment rate was 7.3% and 10.7% for men and women respectively. In addition, the activity rate of women decreases more than the activity rate of men as the number of children in the household increases, which is an indicator of the greater burden of child care that falls on women (MIDES, 2018). In terms of the distribution of women's jobs across various sectors of activity, women represent 76% of health workers, which puts them on the front line of the battle against the Coronavirus pandemic. Other sectors largely feminized and strongly affected by the health crisis are education, where women represent 74.2% of all workers, domestic work with 89.7% of women employees and social services with 77% of women (MIDES, 2019). In relation to the care sector, which includes people working in the care of children, adults and people with disabilities, the MIDES (2018) report shows that 95.6% of people employed in this sector are women, which also accounts for the potential greater impacts of the crisis on women's work.

Moreover, the country stands out in the region for its relatively mature social protection system, with "(...) a long tradition in health services, labor market regulations, and a non-contributory provision for the elderly and families with children" (Amarante & Rossel, 2017, p.15). In 2005 the National Women's Institute was created, and then different laws have been passed such as those governing abortion, the gender quota to access political power, the regulation of human assisted reproduction techniques, egalitarian marriage, legislation on violence against women, among others (Domínguez-Amorós, et al, 2021). In addition to this, during the last decades the country expanded the provision of public childcare services for low income families, have created the National Care System, and a parental component was included for maternity leave in 2013 (Amarante & Rossel, 2017).

However, the data available from the latest Time Use Survey in the country (2013) shows traditional patterns in the division of labor; while men devote 68% of their time to paid work,

women dedicate 65% of their time to unpaid tasks, a proportion that has remained relatively unchanged over the period 2007-2013 (Batthyány & Scavino, 2017). According to the study of Batthyány & Scavino (2017), in 2013 women spend on unpaid work close to 40 hours per week and on average twice as much time per week as men.

Under this framework, Uruguay seems to be positioned at the regional level as a reference country in terms of formal advances in gender equality and the politicization of the issue. However, gender gaps in labor outcomes are still significant and the policies implemented to address these inequalities do not seem to have had major impacts on the distribution of work within households (Batthyány & Scavino, 2017). In this regard, a study by Domínguez-Amorós et al. (2021) shows that the relative resources of men and women (in terms of income, educational level and socio-professional categories) and their impact on intra-household negotiations, provide little insight to understand the distribution of time use in unpaid work. According to the authors, "contextual elements and the markedly unequal gender ideology are the factors underlying the sexual division of work" (Domínguez-Amorós et al., 2021, p.989).

3.4. Hypothesis

Based on this literature, this paper proposes three hypotheses for the Uruguayan case:

Hypothesis 1 – Overall, the pandemic has led to a reduction in paid work hours and an increase in unpaid work hours for both mothers and fathers.

Hypothesis 2 - In relative terms, while fathers have increased their hours of unpaid work, mothers have taken on a greater share of the increased childcare responsibilities, exacerbating pre-existing gender gaps in the distribution of unpaid work.

Hypothesis 3 -Working mothers with low levels of education are the most affected in terms of reduced hours of paid work.

4. Research Design

4.1. Main concepts

4.1.1. Working hours

In this research, the concept of working hours includes hours dedicated to both paid and unpaid work.

Paid work (PW) - Refers to the set of activities carried out by individuals aimed at producing goods and services, for which they obtain pay or profit².

Unpaid work (UPW) - It comprises "...all productive activities outside the official labour market done by individuals for their own households or for others. These activities are productive in the sense that they use scarce resources to satisfy human wants" (Swiebel, 1999, p.11). For the author, activities undertaken as unpaid work have one thing in common: they could, at least in theory, be replaced by market goods and paid services (Swiebel, 1999).

This concept generally includes different categories of work. In this study, unpaid work include: home schooling, household work (cleaning the house, tidying up, washing dishes and ironing, etc.) and childcare (feeding, bathing, dressing and taking care of children)³.

Total work (TW) – Indicates the total hours of work which includes the sum of the hours dedicated to paid as well as unpaid work.

² ILO - Glossary of Statistical Terms

³ Defined based on the information included in the Survey on Children, Time Use and Gender.

4.1.2. Gender gaps in the labor market

According to the World Economic Forum (2020), the gender gap is the difference between women and men as reflected in social, political, intellectual, cultural, or economic attainments or attitudes.

This study is focused on analyzing the gender gaps in the labor market and consequently, the gender gaps in relative terms are calculated on the basis of the difference in working hours between men and women compared to men's situation.

4.2. Data & Descriptive statistics

The Survey on Children, Time Use and Gender (ENUG for its Spanish acronym) is an initiative of UN-Women and UNICEF to document the early impacts of the pandemic in different dimensions in households where children under 18 years of age reside (which represent 41 % of the Uruguayan population). It is a nationwide telephone survey, conducted from April 25th to 28th of 2020 during the 7th week since the beginning of the pandemic, where social, economic and labor activity was restricted and education was totally suspended at all four levels (pre-school, primary, secondary and tertiary). Respondents were 18 years and older living in households with minors, and with a sample size of N= 696 it is representative of the Uruguayan population considering the dimensions of gender, age, education, and geographical region. The sample description is reflected in table 1 below.

Variable	Percentage
Gender	
Male	45.4
Female	54.6
Age	
18 to 34	37.6
35 to 65	62.4
Education	
Low	38.8
Medium	41.6
High	19.6
Household type	
Couple	63.2
Single-parent	18.8
Extended	18.0
Type of employment	
Not employed	17.3
Public	16.2
Private	45.4
Self-employed	15.2
Other	5.9
Region	
Montevideo	35.9
Outside Montevideo	64.1
N	696

Table 1 - Sample description (proportions)

As the objective of this thesis is to analyze the effects of the pandemic on the working hours of fathers and mothers, it focuses on the 426 parents (of the total of 566 parents surveyed⁴) who were working in the pre-pandemic situation (or were on leave of absence or on unemployment benefits). All questions regarding allocation of time were asked in relation to before COVID-19 restrictions were imposed and during them (see Appendix for questions regarding the main variables of interest). In consequence, the dependent variables used refer to the difference in

⁴ In the original sample of 696 cases, fathers, mothers, parents' partners, grandparents, siblings, etc. were surveyed. This study focuses on the responses of fathers, mothers and parents' partners.

time spent in paid, unpaid and total work, before and during the implementation of containment measures as a result of the advent of the pandemic.

Considering that the analysis of time spent on unpaid work is based on respondents' perceptions, it is important to mention that studies analyzing perception-based estimations for these cases conclude that men tend to overestimate their contributions to a greater extent than women (Lee and Waite 2005). Consequently, in the worst-case scenario, this could imply an underestimation of the gender gap in unpaid work and should be taken into account when analyzing the results.

The main independent variable used is the gender of the parent, measured by a binary variable associated with the Female or Male categories. Moreover, socio-demographic control variables were used to consider the different characteristics of the cases analyzed. These variables are: age of parents (18 to 34 versus 35 to 65), level of education (low, medium or high⁵), household type (couple, single-parent or extended), type of employment (private, public, self, other or not-employed), age of children (0 to 3, 4 to 12 or 13 to 17) and geographic region of residence (Montevideo versus outside Montevideo⁶). Table 2 shows the descriptive statistics of the main variables used.

⁵ Low educational level includes: incomplete primary school, complete primary school and incomplete secondary school (up to 3rd grade). Medium educational level includes: complete 3rd grade of secondary school, incomplete high school and complete high school. High educational level includes: incomplete tertiary education, complete tertiary education and postgraduate.

⁶ Montevideo is the capital city of Uruguay.

Variable	Mean	Std	Ν
Difference paid work	-3.71	4.04	426
Difference unpaid work	1.15	3.02	426
Difference total work	-2.56	4.25	426
Difference homeschooling	0.4	0.91	221
Difference housework	1.21	2.54	221
Difference childcare	0.5	3.08	221

Table 2 - Descriptive statistics of main variables

Table 3 reflects the respondent's average daily hours spent on paid, unpaid and total work, in the situation before and during COVID-19. Overall, the results indicate that the pandemic has affected paid working hours to a greater extent in comparison with unpaid working hours. Confirming hypothesis number 1, during the pandemic both mothers and fathers have decreased hours of paid work and increased hours of unpaid work. On average, the respondents reported that in April 2020 they performed 3.64 hours of paid work per day less than they did before the arrival of the pandemic in the country, as well as 1.01 hours per day more of unpaid work, resulting in a reduction of total working hours of 2.63 hours per day. Under this scenario, during the pandemic, women reported having reduced their paid working hours by 55%, dedicating on average 3.86 hours less per day to paid work, while men reported doing on average 3.44 hours less per day of paid work, meaning a 39% reduction in their paid working hours, compared to the pre-pandemic situation. As for unpaid work, women increased on average 1.26 hours per day to these tasks (20% increase), while men devoted 0.77 hours per day more to unpaid work in April 2020 (19% growth) than before the pandemic. As a consequence, the reduction in total working hours is approximately the same in terms of absolute hours for fathers and mothers (2.60 hours daily), implying a drop of 21% and 20% respectively. In this context, the gender gaps in relative terms, increases for paid work and

Note: Mean values are expressed in daily hours. Regarding working hours, a maximum of 15 hours per day was set for paid work or unpaid work, and a maximum of 18 daily hours was established for total work.

remain approximately the same for unpaid work -although it increases in absolute hours given that women continue to dedicate more hours to these activities -, as well as for total working hours, as it is reflected in Figure 2. However, the t-tests performed indicate that the differences in the changes in working hours of fathers and mothers during the pandemic are not statistically significant.

Table 3 - Respondent's mean daily hours spent on paid, unpaid and total work, before and during COVID-19.

	Before	- COVID	During - COVID Change (%)		Gender Gap (working hours)			
DAILY HOURS	Fathers	Mothers	Fathers	Mothers	Fathers	Mothers	BEFORE	DURING
Paid work	8.83	7.05	5.39	3,19	-39%	-55%	1.78	2.20
Unpaid work	4.13	6.35	4.90	7,61	19%	20%	-2.22	-2.71
Total work	12.96	13.40	10.29	10,80	-21%	-19%	-0.44	-0.51

Source: Survey on Children, Time Use and Gender, 2020 (UN Women & UNICEF)

Figure 2 – Daily hours spent on paid, unpaid and total work, before and during COVID-19 and percentage gender gaps.



Source: Survey on Children, Time Use and Gender, 2020 (UN Women & UNICEF)

4.3. Methodology

This thesis presents a quantitative study of the gender-differentiated effects of the pandemic on the working hours of parents. To explore these gender differences, I ran OLS regression models, accounting for individual and household characteristics. Furthermore, in order to deepen the analysis of the association between the results obtained and certain characteristics, I performed regressions with interaction terms between gender and: educational level, age of younger children, and type of employment. The regressions that are not shown in the Results chapter can be consulted in the Appendix. All estimates are calculated using survey weights provided by UN Women to make them representative of the Uruguayan population.

The equation used for the main regression in this study is as follows:

$$y_i = \beta_0 + \beta_1 Gender_i + \varphi X_i + \varepsilon_i$$

The outcome variables (y_i) are the difference in paid, unpaid and total work hours between the situation pre-and during- COVID-19 for the individual *i*. The main independent variable is the binary variable *Gender_i* that takes value 1 if the individual *i* is female and 0 otherwise. X_i is a vector of control variables that includes age, education, household type, employment type, age of youngest child and geographical region as described in the previous section. Finally, the error term is denoted by ε_i . Then, the parameter of interest is β_1 that captures the relationship between parent's gender and changes in working hours before and during the COVID-19 pandemic.

5. Results

5.1. Main results

Table 4 shows linear regressions for the three main dependent variables under analysis: the difference in daily hours devoted to paid, unpaid and total work, interacting with the main independent variable which is gender, and controlling for socio-demographic characteristics. As it can be seen in the table, the coefficients of the regressions vary, mainly in paid work, when control variables are introduced, suggesting that parental characteristics play an important role in the changes in working hours generated during the pandemic. Overall, the results indicate that there is no significant difference in any of the three variables analyzed according to the gender of the parent. However, level of education, type of employment and age of children are variables that do show a significant association with changes in working hours during the pandemic.

As for the incidence of educational level, the results indicate that parents with medium level of education are the ones who decrease their hours of paid work the most. With 95% of confidence, they reduce 0.967 more hours per day compared to people with low education. At the same time, they also experienced an increase in unpaid work, dedicating to these tasks an average of 1.109 daily hours more than people with low education (significant at 99 % confidence). As for highly educated parents, although there is no significant change in paid work hours, there is a significant association with unpaid work, as they declared having increased unpaid working hours, compared to low educated parents.

Regarding the employment status of individuals, parents who are not working anymore at the time of the survey are the ones devoting more time to unpaid work during the pandemic, compared to parents who are still working. Moreover, self-employed workers show a

significant and important reduction in hours devoted to unpaid work, compared to those who stop working during the pandemic.

Lastly, in connection with the incidence of the age of the youngest children, having school-age children (4 to 12 years old) seems to imply a greater drop in paid working hours, significant at 95% confidence, compared to people with children between 0 and 3 years old. The changes in unpaid working hours of parents with children aged 4 to 12, as well as the results for parents with adolescents (13 to 17 years of age) are not significant.

In order to deepen the analysis of the incidence of the educational level of parents on the variables of interest, table 5 reflect regressions with interaction terms considering parent's gender and educational level. Based on the results, it can be concluded that the main relationships showed in Table 4 are driven by changes experienced by fathers. Men with a medium level of education show a statistically significant decrease in the number of daily hours dedicated to paid work compared to men with a low level of education. Furthermore, men with a medium and high level of education significantly increase their time devoted to unpaid work when compared with low educated fathers. Figure 3 provides a clear visualization of the average changes in daily hours dedicated to paid and unpaid work during the pandemic, by gender and level of education.

•	Dependent variable:					
	Differenc	e paid work	Difference	unpaid work	Difference	total work
Female	-0.423 (0.402)	0.277 (0.389)	0.490 (0.300)	0.270 (0.316)	0.067 (0.422)	0.547 (0.418)
35 to 65		-0.103 (0.433)		0.097 (0.351)		-0.006 (0.466)
Medium education		-0.967** (0.428)		1.109 ^{***} (0.347)		0.142 (0.460)
High education		-0.295 (0.525)		1.038 ^{**} (0.426)		0.744 (0.565)
Single-parent		0.085 (0.502)		-0.086 (0.407)		-0.002 (0.540)
Extended household		-0.263 (0.705)		-0.819 (0.572)		-1082 (0.758)
Public employee		5.583 ^{***} (0.650)		-0.843 (0.527)		4.740 ^{***} (0.699)
Private employee		4.807 ^{***} (0.524)		-0.431 (0.426)		4.376 ^{***} (0.564)
Self-employee		4.680 ^{***} (0.643)		-1.328** (0.522)		3.353 ^{***} (0.692)
Other		5.408 ^{***} (0.906)		-0.484 (0.735)		4.924 ^{***} (0.975)
Children 4 to 12		-1.154 ^{**} (0.471)		0.116 (0.382)		-1.038 ^{**} (0.506)
Children 13 to 17		-0.844 (0.570)		-0.728 (0.463)		-1.573** (0.613)
Montevideo		0.071 (0.392)		0.400 (0.318)		0.470 (0.422)
Constant	-3.438 ^{***} (0.277)	-6.607*** (0.617)	0.773 ^{***} (0.207)	0.737 (0.501)	-2.666*** (0.291)	-5.870 ^{***} (0.664)
Observations R ² Adjusted R ²	426 0.003 0.0002	426 0.216 0.191	426 0.006 0.004	426 0.078 0.048	426 0.0001 -0.002	426 0.175 0.149

Table 4 - OLS regression estimates on changes in hours devoted to paid, unpaid and total work during the pandemic.

Note: Standard errors in parenthesis. ***signiffcant at the 1% level, **5% level, *10% level. Omitted cathegories: Male; 18 to 34; Low education; Couple; Not employed; Children 0 to 3; Outside Montevideo.

		Dependent variabl	e:
	Difference paid work	Difference unpaid work	Difference total work
Female	-0.537	0.905*	0.368
	(0.658)	(0.534)	(0.709)
Medium educ	-1.581***	1.487***	-0.094
	(0.561)	(0.456)	(0.605)
High educ	-0.611	1.484**	0.873
	(0.733)	(0.596)	(0.791)
35 to 65	-0.029	0.052	0.023
Single parent	(0.455)	(0.555)	(0.409)
Single-parent	0.096	-0.123	-0.027
E to de l	(0.505)	(0.410)	(0.545)
Extended	-0.282	-0.799	-1081
	(0.704)	(0.572)	(0.760)
Children 4 to 12	-1.090**	0.078	-1.013**
	(0.472)	(0.383)	(0.509)
Children 13 to 17	-0.844	-0.712	-1.555**
	(0.571)	(0.463)	(0.615)
Public	5.566***	-0.819	4.747***
	(0.649)	(0.527)	(0.701)
Private	4.764***	-0.388	4.376***
	(0.525)	(0.427)	(0.567)
Self-employee	4.652***	-1.312**	3.340***
	(0.642)	(0.522)	(0.693)
Other	5.457***	-0.498	4.959***
	(0.906)	(0.736)	(0.978)
Montevideo	0.056	0.407	0.462
	(0.392)	(0.318)	(0.423)
Female:Medium educ	1.452*	-0.931	0.521
	(0.859)	(0.698)	(0.926)
Female:High educ	0.807	-0.969	-0.161
	(1.006)	(0.817)	(1.085)
Constant	-6.351***	0.522	-5.829***
	(0.643)	(0.522)	(0.693)
Observations	426	426	426
R^2	0.221	0.082	0.176
Adjusted R ²	0.193	0.049	0.146

 Table 5- Linear regression models on change in hours dedicated to paid, unpaid and total work, with interaction terms of gender and education.

Note: Standard errors in parenthesis. ***signiffcant at the 1% level, **5% level, *10% level.





Source: Survey on Children, Time Use and Gender (UN Women & UNICEF).

5.2. Parents with school-age children

With the objective of deepening the analysis of changes in unpaid working hours, table 6 shows regressions for three categories of unpaid work (home schooling, housework, and childcare)

for the 221 households living with school-age children⁷. As it can be seen, the results show a statistically significant greater dedication of mothers to both home schooling and housework compared to fathers, with these differences remaining stable even when control variables are incorporated. However, the results show no significant changes by gender of parents for childcare activities.

On average, in April 2020 (in comparison with the pre-pandemic situation) women spent 0.292 daily hours more to home schooling than men, while spending 0.956 daily hours more than fathers to household management tasks. In relation to home schooling, those parents living in "extended households" – where there are other people besides the parents living in the same household (grandparents, aunts, uncles, etc.)- dedicate on average 0.446 fewer hours to these activities in relation to two-parent households. Regarding housework, parents living in Montevideo spend significantly more hours on these tasks in comparison with people residing outside the capital city. Along the same line, those parents also dedicate 0.848 more hours a day to childcare activities.

Furthermore, the educational level of the parents seems to influence the hours dedicated to childcare, with parents of medium and high educational level, suffering a significant increase in childcare hours due to the pandemic, compared to parents of lower educational level. Finally, the self-employed had the greatest reduction in childcare hours compared to those who were not working as of April 2020. This difference is significant at 99% and of considerable magnitude (a reduction of 1,815 hours per day of the difference in hours between pre- and during-COVID).

⁷ The survey used for this study asked about hours spent in childcare only to parents with children under or equal to 12 years of age. Likewise, the hours dedicated to home schooling were only asked to parents with children between 5 and 12 years of age who attend an educational institution.

			Depende	nt variable:		
	Difference he	omeschooling	Difference	housework	Differenc	e childcare
Female	0.248**	0.292**	0.988***	0.956**	0.102	-0.019
	(0.116)	(0.123)	(0.363)	(0.381)	(0.425)	(0.437)
35 to 65		-0.034		-0.657*		-0.425
		(0.126)		(0.390)		(0.446)
Medium educ		-0.096		0.450		1.275**
		(0.139)		(0.433)		(0.496)
High educ		-0.021		0.670		1.229*
		(0.180)		(0.558)		(0.639)
Single-parent		-0.085		-0.344		-0.238
		(0.161)		(0.499)		(0.571)
Extended		-0.446**		-0.372		-1125
		(0.220)		(0.683)		(0.782)
Public		0.167		-0.051		-1264
		(0.218)		(0.677)		(0.775)
Private		0.111		-0.400		-0.627
		(0.157)		(0.487)		(0.558)
Self-employee		0.123		-0.759		-1.815***
		(0.195)		(0.604)		(0.692)
Other		-0.088		-0.193		-0.714
		(0.344)		-1.069		-1.225
Montevideo		0.023		0.802**		0.848*
		(0.128)		(0.398)		(0.456)
Constant	0.256***	0.255	0.518**	0.737	0.340	0.485
	(0.081)	(0.168)	(0.255)	(0.521)	(0.299)	(0.597)
Observations	221	221	221	221	221	221
R ²	0.021	0.048	0.033	0.080	0.0003	0.091
Adjusted R ²	0.016	-0.002	0.028	0.032	-0.004	0.043

Table 6 - OLS regression	estimates on change	s in hours devoted	to school support,	household	work and
	childcare activities,	during the panden	nic lockdown.		

Note: Standard errors in parenthesis. ***signiffcant at the 1% level, **5% level, *10% level.

6. Discussion

This study analyzes the changes in daily hours of paid, unpaid and total work reported by fathers and mothers with children under 18 years of age before and during the pandemic for the case of Uruguay.

Overall, the descriptive results show a generalized fall in paid work hours and an increase in hours dedicated to unpaid work among the population analyzed, with a greater impact on the former both in absolute and relative terms. This situation is to be expected considering what is happening globally, since the pandemic has not only caused an economic recession, but the containment measures that have proven to be effective in controlling the virus, have also shown to have negative consequences on the work overload within households (ILO, 2021). Similarly to what is evidenced by the literature for several countries (Zamarro et al, 2020, Alon et al., 2020; Collins et al., 2020), the descriptive results show greater changes in daily hours for mothers than for fathers, with special emphasis on paid wok, where women reduce their working hours more in both absolute and relative terms, increasing gender gaps in paid work.

In terms of unpaid work, the descriptive results show that although men increase the time dedicated to unpaid work during the pandemic in almost the same proportion as the increase experienced by women (19 and 20% respectively), the gender gaps are maintained in relative terms, but increase in absolute terms, exacerbating the overburden already experienced by women before the crisis. Similar evidence was found by Fodor et al (2020) for the Hungarian case.

Having pointed this out, Table 4 indicates that the differences by gender (both in changes in paid and unpaid work) are not statistically significant once controlling for other personal demographic and socioeconomic characteristics.

Paid work

In the case of paid work, the literature indicates different factors that influence the possible impact of the pandemic. Among these factors are: the sector of activity in which the person works, the type of tasks performed and the consequent possibility of telecommuting, the flexibility in working conditions, family arrangements in terms of the division of care tasks, among others (Alon et al., 2020). Although in the survey examined in this research there is no information available for a more precise analysis of these factors for the Uruguayan context, a study by Espino & De los Santos (2020) indicates that a very similar proportion of women and men (37% and 38% respectively), in aggregate terms, are employed in the sectors with the greatest potential negative impact of the crisis. This could then be a factor related to the fact that no statistically significant changes by gender in paid work are observed. However, the analysis does show significant changes in paid work considering level of education of parents as well as the age of their youngest children.

In relation to the incidence of educational level, the results show that parents with a medium level of education significantly decreased their hours of paid work compared to parents with a low level of education. As mentioned previously, Table 5 suggests that this is driven by the changes in paid working hours experienced by fathers. The study by Espino & De Los Santos (2020) indicates that in general terms, the lower the household income, the greater the probability that its members are inserted in sectors strongly impacted by the pandemic. However, the study suggest that this situation is not necessarily true for men, given that men in the poorest quintiles are inserted in sectors of the economy less affected, such as the agricultural sector. In this context, considering that there is a strong correlation between income and educational level, this could be an explanatory factor for the higher relative effect of the pandemic in the reduction of paid working hours of men with medium level of education.

Additionally, the results suggest a reduction in paid work hours in the case of parents whose younger children is between 4 and 12 years of age, compared to parents with children under that age. Considering that the age of these children coincides with the age of compulsory schooling in Uruguay, this result seems to be linked to the effect on employment of school closures. Several other studies find greater effects of reduced paid work hours during the pandemic on parents with school-age children (Collins, 2020; Zamarro et al.,2020; Qian & Fuller, 2021; Heggeness, 2020). However, most of these studies indicate a greater reduction of hours in mothers compared to fathers, an effect that does not seem to be reflected in the case of Uruguay with the data analyzed in this study.

Unpaid work

With regard to unpaid work, although there are no significant differences according to gender in the main model (Table 4), the educational level of the parents also seems to be a key factor. The results indicate that fathers with medium and high levels of education increase their hours of unpaid work significantly, compared to fathers with low levels of education. The same trend seems to be observed for mothers, but in this case the results are not significant. The consequences of this is that gender gaps in relative terms for unpaid work seems to narrow for parents with medium and high levels of education.

There could be a number of reasons behind the association found and in order to better understand it, the analysis was restricted to parents with school-age children for whom information is available on the hours spent on the different categories of unpaid work. The results then suggest a significant increase in the hours that highly educated fathers devote to childcare compared to fathers with lower education. This could be linked to a decrease in the usage of childcare services by high educated parents during the pandemic and a more egalitarian distribution of such work, compared to low educated parents. In relation to the first factor, a study developed by the Institute of Economics, which analyzes the National Survey of Child Development and Health (ENDIS for its Spanish acronym)⁸, suggests that both the proportion of children attending school and the number of paid caregivers hired, are positively associated with household income. Likewise, this study also indicates that the number of hours of childcare that must be covered through external channels (educational centers or domestic workers) and the proportion of mothers who must reconcile employment and care responsibilities, increase as the income of the household increases (Sánchez & Méndez, 2020). Under this context, once again assuming a positive correlation between income and educational level, the closure of schools and the social distancing measures applied during the pandemic could indicate a greater impact on the increase of childcare hours for parents with a high educational level compared to low educated parents.

With respect to the second factor at play, the ENDIS data also indicate a positive association between income level and parental involvement in childcare (Sánchez & Méndez, 2020). In consequence, the authors state that it is expected that during the pandemic the reconciliation of employment and care responsibilities will be achieved with a more equitable distribution of childcare, the higher the income of the parents (Sánchez & Méndez, 2020). Likewise, this result seems to be associated with that found by Seiz (2021) for the case of Spain, where the pandemic seems to have enabled dual-earner couples with both partners working remotely and where the mother had a strong bargaining power, to achieve more egalitarian divisions of labor. In order to explore the factors behind this phenomenon, the author indicate that the possibility of teleworking and greater flexibility in working conditions, were key elements in achieving a more equitable distribution of the care overload (Seiz, 2021). For the Uruguayan context although the possibilities of teleworking are very heterogeneous according to occupations and

⁸ Conducted by the National Institute of Statistics of Uruguay in 2018.

sectors of activity, evidence indicates that the occupations less compatible with teleworking, have a higher concentration of workers with low levels of education and low income (Capurro et al., 2020). According to the analysis conducted by Espino & De los Santos (2020), the compatibility with telecommuting is generally lower for men than for women, but the opposite occurs at the highest income percentiles. This could be a possible explanation for the greater involvement of high educated fathers in the care of their children during the pandemic.

Finally, when the analysis is restricted to parents with school-age children, there are significant differences by gender in unpaid work, with women experiencing a greater increase in the number of hours dedicated to homeschooling and housework. However, no significant differences were found for childcare. These results seem to indicate that the pandemic has exacerbated existing gender gaps in the division of homeschooling and household chores, deepening traditional patterns in the gender division of work. Furthermore, the results suggest that the increase in childcare during the pandemic has been more equally distributed than the rest of the activities included in unpaid work. This is consistent with the results found by Del Boca et al. (2020) for the Italian case, where "(...) most of the additional workload associated to COVID-19 falls on women while childcare activities are more equally shared within the couples than housework activities" (p.1).

6.1. Limitations

This study has three main limitations. The first one refers to the fact that the "Survey on Children, Time Use and Gender" was conducted during the last week of April 2020 and only contains data for two time periods: before COVID-19 and at the time of the survey. In this sense, although it provides information on the early effects of the pandemic, it does not allow to visualize the evolution of the changes generated over time. Considering that more than a

year has passed since the beginning of the pandemic, it is to be expected that its effects on parents' working hours have been modified.

The second limitation refers to the lack of information available in the survey on some characteristics of the parents such as: ethnicity; migrant status; income; sector of activity or occupation. Having this information would allow to perform an intersectional analysis and therefore identify the population most affected during the pandemic. Likewise, the data on sector of activity and occupation would also allow a more precise estimation of the consequences on paid work.

Finally, the third constraint is that since this is a descriptive study, it is not possible to draw causal inferences in the relationship between the variables analyzed. For a more precise estimation on the changes experienced in the labor market as a consequence of the pandemic, it would be advisable to use data from the National Household Survey conducted by the National Institute of Statistics in Uruguay. At the time of writing this thesis, complete data for the year 2020 was not available.

6.2. Policy implications

The importance of a gender approach to the analysis of the impacts of COVID-19, is based on the recognition that men and women play different roles in the economy and society and that this may determine different effects of the pandemic on people's lives (Espino & De Los Santos, 2020).

Households' decisions on the allocation of time between paid and unpaid work depend on the interaction of different institutions: the State, the Family and the Market (Sánchez & Méndez, 2020). In Uruguay, during the last decades, the role of public policies has been crucial to achieve a greater incorporation of women in the labor market and to promote a more equal

distribution of unpaid work. However, the Uruguayan labor market still presents important gender gaps and the distribution of work within the household continues to reproduce traditional patterns, being women responsible for a much greater proportion of domestic and care work (Espino, 2013; Batthyány et al., 2015). In this context, the COVID-19 pandemic seems to impose new challenges for the State, Family and Market triad, leading households to adopt new strategies to reconcile paid work and care responsibilities (Sánchez & Méndez, 2020).

The analysis of the early effects of the pandemic on the working hours of fathers and mothers reflected on this thesis, shows that some characteristics, such as level of education and age of the youngest children, are crucial to understand the changes caused by the advent of the pandemic. In this sense, parents with school-age children and parents with low level of education, particularly mothers, seem to be among the populations most affected by the current situation. This scenario seems to pose particular challenges for the country's public policies. If the closure of schools or their partial opening scheme is maintained, inequalities will surely increase between those who can maintain their paid work, have more flexible working conditions, or divide care work more equally, and those who have lost their jobs or have no choice but to reduce their working hours in order to assume the overload of childcare imposed by the pandemic.

Under these circumstances, the government plays a fundamental role in protecting the most vulnerable populations, in order to avoid exacerbating existing inequalities and mitigating the negative effects of the pandemic on the population's well-being. Among the policies that could be implemented for these purposes are: the provision of special paid leave for working parents while schools or childcare centers are closed; the expansion of childcare benefits for low-income families; the extension of unemployment benefits to workers with care responsibilities;

the establishment of targeted subsidies for female heads of household and informal workers with children; the implementation of subsidies or fiscal incentives to compensate companies that incorporate family leave schemes for workers affected by school closures (ILO, 2021; Sánchez & Méndez, 2020). Along the same line, public policies can also promote and facilitate the implementation of flexible working conditions and the possibility of teleworking, factors that have proven to be essential during the pandemic to reconcile paid and unpaid work. Lastly, the pandemic also highlights the need to work on a medium-term strategy that breaks with gender stereotypes and traditional patterns of intra-household division of labor.

7. Conclusion

Worldwide the COVID-19 pandemic, and the containment measures associated with it, appear to be generating important changes in the labor market and in the division of unpaid work within households. Long before the spread of the pandemic, women have disproportionately shouldered non-paid domestic and care work, whether it's caring for children or ageing parents, keeping the house up and running, or even subsistence farming. In this context, the global emergency unleashed by COVID-19 highlights the importance of care and of women's contribution to the development of the economy and the well-being of society (Espino & De Los Santos, 2020).

In this context, this study provides a gender perspective on the early effects of the pandemic on the working hours of fathers and mothers in the case of Uruguay. The results indicate that while there are no significant differences in changes in working hours by gender, the educational level of parents and having school-age children are factors associated with the way the pandemic is affecting parents' life. Consequently, low-educated women with school-age children seem to be among the most negatively impacted populations.

The role of public policies in this context is a source of debate worldwide. In the case of Uruguay, the literature analyzing the effects of the crisis from different angles seems to agree on the need for greater state intervention to mitigate its negative effects. This study has been intended to probe the increasing necessity of public policy implementation with gender lens under the COVID-19 pandemic, in order to avoid the exacerbation of gender inequalities.

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Appendix

Figure 4 - Survey questions related to variables of interest.

Paid work

Q58 - How many hours did you work yesterday?

Q59 - And how many hours did you work on a typical day before the arrival of the coronavirus?

Upaid work

Homeschooling

Q18 - How much time did you devote yesterday to helping the children with homeschooling?

Q19 - On a typical day before the arrival of the coronavirus in Uruguay, how much time did you spend helping the children with homeschooling?

Housework

Q43 - How many hours did you spend yesterday doing household chores such as cleaning the house, tidying up, washing the dishes or ironing?

Q44 - And before the arrival of the coronavirus in Uruguay on a typical weekday how many hours did you spend doing these household chores?

Childcare

Q45 - How many hours did you devote to childcare tasks (such as feeding, bathing or dressing the children) yesterday?

Q46 - And before the arrival of the coronavirus in Uruguay, how many hours did you spend caring for children in your household?

Source: Survey on Children, Time Use and Gender (UN Women & UNICEF).

Difference	Difference	Difference
paid work	unpaid work	total work
0.295	-0.826	-0.532
(0.735)	(0.598)	(0.790)
-1.483 ^{**}	-0.540	-2.022***
(0.629)	(0.512)	(0.677)
-0.222	-1.464**	-1.686**
(0.728)	(0.592)	(0.783)
-0.897**	1.229***	0.332
(0.430)	(0.350)	(0.462)
-0.144	1.129***	0.985*
(0.518)	(0.421)	(0.557)
-0.095	0.200	0.105
(0.430)	(0.350)	(0.463)
0.125	-0.066	0.059
(0.500)	(0.407)	(0.538)
-0.304	-0.864	-1168
(0.703)	(0.572)	(0.756)
5.503 ^{***}	-0.878*	4.625 ^{***}
(0.648)	(0.527)	(0.697)
4.807 ^{***}	-0.509	4.299***
(0.524)	(0.426)	(0.564)
4.678 ^{***}	-1.367***	3.310 ^{***}
(0.640)	(0.521)	(0.689)
5.243 ^{***}	-0.623	4.620 ^{***}
(0.903)	(0.734)	(0.971)
0.631	1.431 [*]	2.062 ^{**}
(0.896)	(0.728)	(0.963)
-1376	1.533 [*]	0.157
-1.017	(0.827)	-1.094
-6.643 ^{***}	1.288 ^{**}	-5.355***
(0.662)	(0.539)	(0.712)
426	426	426
0.225	0.084	0.185
0.199	0.053	0.157
	Difference paid work 0.295 (0.735) -1.483** (0.629) -0.222 (0.728) -0.897** (0.430) -0.144 (0.518) -0.095 (0.430) 0.125 (0.500) -0.304 (0.703) 5.503*** (0.648) 4.807*** (0.648) 4.807*** (0.524) 4.678*** (0.640) 5.243*** (0.640) 6.225 (0.728) -1.376 (0.107) -6.643***	Difference paid workDifference unpaid work0.295-0.826 (0.735)(0.598)-1.483**-0.540 (0.629)(0.512)-0.222-1.464** (0.728)(0.592)-0.897**1.229*** (0.430)(0.350)-0.1441.129*** (0.518)(0.421)-0.0950.200 (0.430)(0.350)0.125-0.066 (0.500)(0.407)-0.304-0.864 (0.572)0.572)5.503***-0.878* (0.648)(0.527)4.807***-0.509 (0.524)(0.426)4.678***-1.367*** (0.640)(0.521)5.243***-0.623 (0.903)(0.734)0.6311.431* (0.896)(0.728)-13761.533* -1.0171.288** (0.662)426426 0.2250.084 0.1990.0530.053

 Table 7 - Linear regression models on change in hours dedicated to paid, unpaid and total work, with interaction terms of gender and age of children.

Note: Standard errors in parenthesis. ***signiffcant at the 1% level, **5% level, *10% level.

	Dependent variable:		
	Difference paid work	Difference unpaid work	Difference total work
Female	1.502	0.753	2.255**
	(0.917)	(0.747)	(0.981)
35 to 65	-0.169	0.058	-0.110
	(0.434)	(0.353)	(0.464)
Medium educ	-0.964**	1.125***	0.160
	(0.429)	(0.350)	(0.459)
High educ	-0.212	1.069**	0.857
	(0.526)	(0.429)	(0.563)
Single-parent	0.048	-0.094	-0.046
	(0.503)	(0.409)	(0.538)
Extended	-0.276	-0.846	-1.122
	(0.706)	(0.575)	(0.755)
Public	6.270***	-0.772	5.499***
	(0.969)	(0.789)	-1.037
Private	5.931***	0.069	6.000***
	(0.820)	(0.668)	(0.878)
Self-employee	5.049***	-1.132	3.916***
	(0.972)	(0.792)	-1.040
Other	6.352***	-0.153	6.199***
	-1.217	(0.991)	-1.302
Child 4 to 12	-1.070**	0.161	-0.909*
	(0.473)	(0.385)	(0.506)
Child 13 to 17	-0 747	-0 664	-1 411**
	(0.573)	(0.466)	(0.613)
Montevideo	0.057	0 389	0 447
	(0.393)	(0.320)	(0.421)
Female:Public	-1.069	-0.002	-1 071
	-1.282	-1.044	-1.372
Female:Private	-1 998*	-0.920	-2 918**
	-1 064	(0.867)	-1 138
Female:Self	-0 291	-0.220	-0 511
	-1 307	-1.064	-1 398
Female:Other	-1 731	-0 569	-2 300
	-1 830	-1,490	-1.958
Constant	-7 422***	0 410	-7 012***
	(0.822)	(0.670)	(0.880)
Observations	426	426	426
R ²	0.225	0.082	0.193
Adjusted R ²	0.193	0.044	0.160

 Table 8 - Linear regression models on change in hours dedicated to paid, unpaid and total work, with interaction terms of gender and type of employment.

Note: Standard errors in parenthesis. ***signiffcant at the 1% level, **5% level, *10% level.