



# Gender and Beyond: Employment Patterns during the COVID-19 Pandemic in Italy

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Received: 26 December 2022 / Accepted: 22 March 2024 / Published online: 3 May 2024  
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## Abstract

This paper investigates employment changes during the COVID-19 pandemic for women and men in a country characterized by notoriously low female employment: Italy. The paper explores to what extent previously existing inequalities in employment were further exacerbated during the pandemic. Using data from the Italian Labor Force Surveys from 2018 to 2020, we find evidence of a limited decline in employment, but a steep increase in the number of individuals working zero hours during the lockdown periods. This result holds for both men and women. The pandemic highlighted how gender inequalities in employment intersect with other socioeconomic disadvantages: single mothers and lower-educated women were more affected than their male counterparts, while single men without children and foreign men were hit stronger than women with the same characteristics in the immediate aftermath of the pandemic. The pandemic thus came with differentiated consequences, generally affecting those already in less advantaged situations harder. At the same time, the results support the idea that women's employment was crucial to counteract job loss in the family, and some became the only breadwinner for their families. This also exposed them to risks by working during the pandemic. Overall, the pandemic greatly accentuated preexisting social inequalities in the Italian labor market, yet with an apparently transitory effect at least regarding employment participation.

**Keywords** COVID-19 · Employment · Gender · Social inequality · Added worker effect · Labor force survey · Economic recessions

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## Introduction

The coronavirus outbreak that began in the early months of 2020 had profound consequences for societies worldwide, some of which are likely to persist for the years to come. From the beginning of the COVID-19 pandemic (hereafter: the pandemic), scholars voiced concerns that it may exacerbate existing gender inequalities (Blaskó et al., 2020; Remery et al., 2022). Empirical research that followed documented that during the pandemic, women were hit harder than men in terms of increased housework and childcare load (Andrew et al., 2020; Del Boca et al., 2020; Fodor et al., 2021; Kulic et al., 2021; Zamberlan et al., 2021, 2022), mental load (Raile et al., 2021), and a rise in domestic violence (Donato et al., 2021; Parry & Gordon, 2021). Additionally, evidence indicates that women in many countries were more likely than men to reduce paid work (Adams-Prassl et al., 2020 in the United Kingdom and the United States; Albanesi & Kim, 2021; Landivar et al., 2020; Raile et al., 2021 in the United States; Alon et al., 2022; Dang & Viet Nguyen, 2021 across countries; Farré et al., 2020 in Spain; Kristal & Yaish, 2020 in Israel; Reichelt et al., 2021 in Germany and Singapore).

This study contributes to the body of evidence on the employment-related consequences of the pandemic by analyzing how it affected the employment conditions of men and women in Italy, one of the first European countries to implement lockdown measures in response to the virus. The Italian case is particularly relevant because of Italy's strong gender inequalities in both the labor market and the private sphere. In 2019, the year before the pandemic erupted, only 53.9% of Italian women aged between 20 and 64 were employed, compared to the European average of 67.2%. In the same age group, the employment rate for Italian men was 73.3% (Eurostat, 2022). The division of unpaid labor in Italy is also highly unbalanced (Dotti Sani, 2012; Zannella & De Rose, 2019), with women taking on considerably more housework and childcare than men, even when they are employed full-time (ISTAT, 2016). In a similar context, understanding any factors that might impede or worsen female employment is crucial.

In addition to providing evidence in the Italian context, our research extends previous studies on the employment consequences of the pandemic in several ways. First, we focus on multiple employment-related indicators that account for both the employment status and the actual number of hours worked in the reference week. Most studies have analyzed the consequences of the pandemic on men's and women's employment status. However, because different countries adopted different measures to counteract possible job losses linked to the pandemic-induced economic downturn, depending on the context, employment status alone may not give a full picture of the gendered impact of the pandemic. In countries where governments implemented furlough schemes, such as Italy and the United Kingdom, and measures to prevent layoffs, such as in Italy, employment rates did not decline as dramatically as in countries such as the United States that did not implement such schemes (Landivar et al., 2020; Albanesi & Kim, 2021; Alon et al., 2022).

Second, we focus on the employment stock across all quarters of 2020 in comparison to the pre-pandemic period, allowing us to assess the effects of the pandemic during its most severe phases (i.e., during the first lockdown in Italy that took place

between March and June 2020 and the second lockdown in autumn of 2020), as well as possible recovery mechanisms. Simultaneously, we compare how transitions out of employment and transitions to reduced working hours during 2020 differ from those in 2019. Prior studies have primarily relied on data collected only during the pandemic (e.g., Adams-Prassl et al., 2020; Del Boca et al., 2020; Farré et al., 2020; Raile et al., 2021) or cross-sectional official statistics on employment and unemployment rates (e.g., Qian & Fuller, 2020; Baert, 2021; Bluedorn et al., 2021), which do not allow for analyzing employment transitions over time.

Third, we pay specific attention to the broader socioeconomic divide of the COVID-19 recession by investigating which social groups have experienced the most substantial decline in paid work. Existing literature has predominantly focused on gender inequalities in employment, disregarding how gender intersects with other socioeconomic and demographic characteristics that may drive, hamper, or cushion the gendered employment outcomes during the pandemic (see Kim et al., 2022 and Goldin, 2022 for exceptions regarding the United States). However, previous analyses on specific population groups suggest the influence of other pivotal factors on the gendered pattern of employment during the pandemic (Andrew et al., 2020; Dias et al., 2020; Kalenkoski & Pabilonia, 2020; Qian & Fuller, 2020; Churchill, 2021; Fabrizio et al., 2021; Hipp & Bünning, 2021; Lee et al., 2021; Kim et al., 2022). We adopt an intersectional approach to determine whether structures of social inequalities intersect with gender to generate multiple axes of inequalities. We hence study changes in employment outcomes during the pandemic considering gender in conjunction with age, level of education, household type (considering the presence of a partner and children), characteristics of the occupation, and citizenship.

Last, we integrate the analysis with a focus on a sample of partnered individuals. By taking a couple-level perspective, we study employment patterns following a partner's job loss. In other words, we test whether men and women reacted to their partner's employment loss by increasing their participation in the labor force.

## Background

### Gender Disparities of the Pandemic Recessions

During the 20th century, women were more exposed to job loss during economic downturns than men due to factors associated with their greater likelihood of holding short-term contracts compared to men, working more often in pro-cyclical economic sectors, and more often holding marginal jobs. Men's employment also used to be more protected and often prioritized because it was the main source of family income (Rubery, 1998). This regularity, however, reverted during more recent economic crises. During the Great Recession, unemployment rates increased especially for men, as sectors like construction and manufacturing, which are typically male-dominated, were the most affected. In contrast, women, who are more often employed in the service or public employment sectors (which are less responsive to economic fluctuations), experienced relatively less job loss (Bettio & Verashchagina, 2014; Sánchez-Mira & O'Reilly, 2019).

One of the factors contributing to this countercyclical nature of female employment, especially among married women, emerged to be related to household insurance via labor supply (Albanesi, 2019). This mechanism, often referred to as the added worker effect (henceforth: AWE), suggests that periods of sustained earning losses, such as recessions, may trigger one family member to increase their labor supply (Woytinsky, 1942; Lundberg, 1985). Consequently, the deteriorating employment prospects of one partner could lead to the increase or activation of labor market participation, adding a new influx of people into the labor force. In reference to past recessions, some authors report evidence for a small or no AWE in developed countries (e.g., Lundberg, 1985; Cammeraat et al., 2022), while others find a sizable increase in women's labor supply as a response to their partners' job displacement (e.g., Starr, 2014; Ghignoni & Verashchagina, 2016; Baldini et al., 2018; Stephens, 2002). Yet, the pandemic-induced closures of businesses and economic activities led to a decrease in job opportunities, thereby making it difficult for a previously unemployed person to acquire new employment in response to their partner's job loss.

Given the unique circumstances triggered by the pandemic, scholars have questioned whether its implications for gender dynamics in the labor market may differ from those of past recessions. Lockdown and social distancing measures had a significant impact on sectors that heavily rely on face-to-face interactions or involve travel, such as retail, accommodation and food services, travel agencies, and the care sector (ILO, 2020). In many countries, these sectors are female-dominated, which led many scholars to expect a disproportionate effect of the pandemic on women's labor market conditions relative to men's—a "she-cession" (Albanesi & Kim, 2021; Alon et al., 2022; Caselli et al., 2022; Fabrizio et al., 2021). Additionally, the pandemic involved dramatic changes in the private sphere of life: school closures imposed an increase in the time devoted to childcare activities and management of children's distance learning, while prolonged periods spent at home resulted in a rise in the time devoted to housework. Because unpaid work is still disproportionately shouldered by women (Altintas & Sullivan, 2016; Dotti Sani, 2018; Brini et al., 2022), the pandemic also influenced gendered employment patterns via a possible reduction of time devoted to paid work or even resignation due to the incompatibility of work and childcare responsibilities during lockdowns.

In line with these expectations, much of the emerging evidence on the consequences of the pandemic recession on employment documents that women suffered a widened gender gap in many countries. In the United States, where most empirical research is based, worse employment consequences for women are consistently documented: American women lost more jobs (Adams-Prassl et al., 2020; Alon et al., 2022) and reported more work interruptions than men during the first wave of the pandemic (Raile et al., 2021). The initial effects of the pandemic were particularly pronounced for mothers, who not only lost five times more working hours compared to fathers between February and April 2020 (Collins et al., 2021) but were also more likely to exit or be dismissed from the labor market (Dias et al., 2020; Landivar et al., 2020). Similar results are found in Canada, where mothers with children under 12 entered unemployment more often than fathers between February and May 2020 (Qian & Fuller, 2020).

In Europe, the consequences of closures on men's and women's working conditions are more mixed. In the United Kingdom, Andrew et al. (2020) show that mothers in households with dependent children were more likely to be out of work than fathers during the crisis, while Hupkau and Petrongolo (2020) report no gender differences in paid employment or furloughing between January and May 2020, but only small differences in the number of working hours lost by women. In Germany, some studies find no gender asymmetries in either job loss (Adams-Prassl et al., 2020) or reduction in working hours during the early phase of the COVID-19 crisis (Knize et al., 2022), whereas others document a marginal decline in full-time employment for men but not for women (Globisch et al., 2022). In Spain, Farré et al. (2020) show that women were marginally more affected than men in terms of employment, but the loss was temporary and partially offset by women being relatively more likely to work from home during the lockdown phase.

Empirical evidence in the Italian case is also not entirely clear-cut. Del Boca et al. (2020) conducted an online survey of a representative sample of Italian women and show that fewer women than men stopped working during the initial phase of the pandemic. Casarico and Lattanzio (2022) use administrative data for multiple years on a sample of active employment contracts and show that women experienced a slightly lower reduction in job termination probability compared to men in 2020 relative to previous years, even though women immediately after the pandemic were more likely to terminate their jobs with respect to the past. Bettin et al., (2023) utilize data from the Italian Labor Force Survey for the first three quarters of 2020 and report higher job loss probabilities for female workers compared to male workers in non-essential economic sectors in 2020, while no significant gender differences emerged in terms of working hours. In contrast, adopting a couple-level perspective on the same dataset for multiple years, Brini et al. (2021a, b) document that the percentage of households where women work more hours than men or are the sole workers increased in Italy during the pandemic.

As the gender composition of the economic sector is specific to each country, and governments adopted different strategies at different times to reduce the spread of the virus and implemented heterogeneous policies to shield workers from the economic and financial threats of the closures,<sup>1</sup> mixed findings across European countries are not surprising. Rather, they suggest that the consequences of the pandemic should be carefully linked to each specific situation. Differences in analytical approaches might explain why findings vary even within the same country. For instance, in their study on Italy, Bettin et al., (2023) compare the post-lockdown months with earlier months in 2020, which risks conflating seasonal changes with pandemic effects. In the following section, we highlight the unique aspects of the Italian context and clarify how our study differs from previous research.

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<sup>1</sup> To help workers, the “Coronavirus Job Retention Scheme” was introduced in the United Kingdom, and the “Kurzarbeitergeld” was expanded in Germany.

## The Italian Context

The detection of the first COVID-19 cases in some municipalities in northern Italy in late January 2020 triggered a series of decree laws that enacted progressively restrictive and increasingly widespread measures to halt the spreading of SARS-CoV-2 pathogens until the enforcement of a national lockdown between March 11 and May 3 of 2020.<sup>2</sup> The lockdown imposed the complete shutdown of activities considered non-essential for the Italian supply chain, involving approximately 48.5% of employees (INPS, 2020b), while other sectors remained fully open during the pandemic. Daycare centers, schools, and universities were closed throughout the country, with lectures from primary to tertiary education generally provided online. A second round of closures began after October 13 and continued throughout the year due to the resurgence of COVID-19 infections.

In March, the government immediately implemented a series of support packages to help businesses, the self-employed, and workers manage the difficulties related to the restrictions. Key measures included a nationwide firing ban, which prevented layoffs throughout 2020 and limited job losses for non-temporary workers. In addition, income support measures were implemented for specific categories of businesses and workers, including grants, tax deferrals, and postponement of utility bill payments for businesses. Furthermore, short-time work schemes offering subsidies for partial or full working-hour reductions to employees in firms experiencing difficulties were expanded. The Italian “Cassa Integrazione Guadagni” (CIG), a state-based scheme that usually replaces up to approximately 80% of the earnings forgone by a worker due to hours not worked, was extended to include a wider range of businesses, and hence of workers.<sup>3</sup> During 2020, almost 3 billion hours of CIG were used, versus 260 million in 2019 (INPS, 2020a).

Despite the closures, some categories of workers were able to maintain full employment. Some sectors were hardly affected by closures (like education and health care) and in Italy, these are primarily female-dominated sectors (Brini et al., 2021b).<sup>4</sup> Moreover, thanks to the firing ban and temporary work schemes, a vast number of workers remained employed despite not working or working at reduced hours and reduced salaries. Similarly, in other countries like the United Kingdom and Germany, governments implemented furlough schemes that subsidized workers' earnings and prevented layoffs, which led to unemployment rates to increase only marginally (Adams-Prassl et al., 2020 in the United Kingdom; Globisch et al., 2022 in Germany). This is in sharp contrast to countries like the United States, where policies aimed at protecting workers were limited or non-existent and unemployment rates rose substantially, particularly for women (Albanesi & Kim, 2021). It follows that to properly understand the gendered consequences of the pandemic on employ-

<sup>2</sup> For a more detailed description of the COVID-19 timeline in Italy, refer to Brini et al. (2021a, b).

<sup>3</sup> The CIG has binding ceilings which reduce the replacement rate for middle- and high-paid workers.

<sup>4</sup> Considering the Italian workforce aged 25–59 in 2019, the year before the pandemic, women were 76.58% of the education sector and 73.2% of the health sector. Brini et al. (2021b) show that for Italy, during the first lockdown, the share of women employed in sectors that were not forced to temporarily suspend their activities was higher (54%) than the share of men (39%).

ment patterns in Italy, it is crucial to consider not only the employment status but also other characteristics of employment, such as the number of hours worked.

The pandemic also affected the division of household work, indirectly affecting the working arrangement of men and women. The closure of childcare services and schools during the early stages of the pandemic had significant implications on workers who rely on these services to engage in paid work, placing a heavier burden on parents in terms of housework, childcare, and assisting children with remote learning. As a result, many parents, particularly women, may have been forced to reduce their working hours or even resign from their jobs. In Italy, as of November 2020, mothers spent an average of one and a half hours per day on homeschooling, while fathers spent less than one hour (Del Boca et al., 2022). This disparity contributed to a widening of the gender gap in household activities during the first wave of COVID-19 lockdown (Del Boca et al., 2022), despite some progress in the equal sharing of childcare responsibilities (Del Boca et al., 2020).

As the pandemic subsided and reopening progressed, certain groups of workers may have found it more or less difficult to regain full employment. Most of the studies mentioned above focus exclusively on the earlier stages of the pandemic. At least at an aggregate level, however, the gender gap in employment that was initially documented in some countries for women disappeared throughout 2020 (e.g., Lee et al., 2021 in the United States). Villarreal and Wu (2022) also found a strong cyclicity of the employment consequences of the pandemic, with gender differences being less pronounced once the seasonality of women's employment is accounted for. Given that the Italian labor market is strongly influenced by seasonal fluctuations (Gambuzza & Mulas, 2022), it is crucial not only to compare the pandemic year 2020 to previous years but also to focus beyond the initial phase of the pandemic to capture these dynamics.

Moreover, it is essential not just to explore if the pandemic affected the employment outcomes of women and men, but also how it affected their employment situations. Existing research gives relatively scant space to other socioeconomic dimensions that might accompany some of the effects of the pandemic or intersect with gender in its employment-related consequences. However, considering the diverse composition of employees across sectors that were variously impacted by the pandemic, as well as the access to support packages for different groups of workers, the employment consequences of the pandemic may be more pronounced for marginalized groups in the labor market. For example, Qian and Hu (2021) examine gendered work patterns within couples in the United Kingdom and the United States and show that partners' relative human capital, rather than gender, affected the reshaping of families' work arrangements during the pandemic, with an increase in the male-sole-worker model in couples where the female partner had lower levels of education than the male partner. In addition, Churchill (2021) reports that the pandemic hit young people particularly hard in Australia, with more frequent employment losses among young women. Likewise, the adverse consequences of the pandemic on employment were stronger for parents and people with childcare responsibilities (Kalenkoski & Pabilonia, 2020 in the United States; Qian & Fuller, 2020 in Canada; Raile et al., 2021 in the United States; Kim et al., 2022 in the United States).



The Italian labor market is characterized by profound social inequalities (Barbieri & Cutuli, 2021), which may exacerbate the challenges faced by specific social groups, intersecting with gender disparities. Compared to other European countries, women's employment rates are relatively low, which makes additional employment losses a particularly delicate situation for women. Moreover, economic inactivity and unemployment are notably high among the young, and employment instability is strongly concentrated in the younger cohorts as a consequence of the specific labor market deregulation (Barbieri et al., 2019). Factors such as low education and migration background also contribute to increased labor market risks (Scherer, 2005; Fullin, 2016). Therefore, it is pivotal to consider that the negative effects of the pandemic may not only be stratified by gender and that multiple dimensions of inequalities may be involved and may intersect, disproportionately affecting already vulnerable social groups.

## Data and Methods

### Data

Our study draws on large-scale, repeated cross-sectional, quarterly data from the Italian Labor Force Survey (IT-LFS). IT-LFS is a household-sample survey collected by the national statistical office and used by the national and European official statistics to provide a rich set of information on the employment situation of the working-age population, together with individual and household characteristics. During the survey, all members of sampled families residing in Italy are interviewed, excluding those who live in hospices, religious institutes, or barracks. Participation in the interview is mandatory for sampled households and members of each family<sup>5</sup> are surveyed via computer-assisted personal interviews (CAPI) or computer-assisted telephone interviewing (CATI).<sup>6</sup> The data is well suited for our study because it provides measures of employment status and hours worked in the week prior to the interview on a quarterly basis. Moreover, despite being designed cross-sectionally, the survey collects longitudinal information on all household members' professional status one year before the interview, distinguishing the following self-assessed statuses: employed, unemployed, fulfilling domestic tasks, student, or retired from work. Hence, the survey allows for a longitudinal perspective on transitions in and out of employment for all household members. Further key information includes respondents' sex at birth, age, level of education, citizenship, type of employment contract, job permanency, economic sector, and region of residence. We gathered quarterly data from 2018 to

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<sup>5</sup> A family is defined as a group of people bound by ties of marriage, kinship, affinity, adoption, protection or emotional ties, cohabitants and having the same residence in the same municipality.

<sup>6</sup> The pandemic did not affect the data collection process. For some periods after March 2020, data collection has been done either by telephone (CATI) or through the internet (CAWI) in substitution of CAPI. We would not expect this to have a serious impact on the kind of survey questions we use. For a broader and more detailed discussion of survey methodology, refer to ISTAT (2006).



2020,<sup>7</sup> where 2018 and 2019 serve as the pre-pandemic reference points. While 2019 might be sufficient to provide a pre-pandemic reference, we include 2018 to ensure more robust estimates and to rule out the possibility that 2019 was an anomalous year. Table A1 in Appendix A provides statistics for the data samples and a full list of variables included in the analysis. All analyses are weighted by individual weights.

## Methods, Samples, and Variables

We first present descriptive evidence for the evolution of the overall working conditions of men and women throughout all quarters from 2018 to 2020. We consider both the potential and effective workforce, that is, women and men of working age (15 to 64 years old) who were not students, retirees, or permanently disabled at the time of the interview (N women=286,356; N men=266,081). Four different outcomes are analyzed:

(A) *Employment*. This distinguishes between being employed or not, as defined by the International Labour Organization (ILO).<sup>8</sup> The definition includes among the employed, those who worked in the week prior to the interview, but also those who were absent from work. We refer to this group as “employed (including not working)” throughout the text.

(B) *Employed and working*. Because some workers classified as employed might have totally or partially interrupted their work activities, the employment indicator is only partially able to grasp the consequences of the pandemic. To deal with this limitation, we consider the working status the week before the interview as an additional indicator. Individuals are regarded as “employed and working (at least one hour in the reference week)” if they worked a positive number of hours during the week before the interview.

(C and D) *Hours worked*. Employment was also reduced at the intensive margins during the pandemic. We therefore also examine the number of hours people worked in the week prior to the survey, both *including* and *excluding* people with zero hours. We top-coded working hours at 80 weekly hours.

We compare the percentage of women and men in each labor market status in 2020 with 2019 and 2018 on a quarterly basis. This approach aids in minimizing potential bias stemming from factors unrelated to the pandemic that could affect the results (Goldin, 2022)<sup>9</sup> and takes into account the seasonality of employment (Villarreal & Yu, 2022). These descriptive results are robust to controls for population composition in terms of age, education, family type, immigrant status, and region (Figures A1 and A2 in Appendix B). Since Italian men and women have very different employment

<sup>7</sup> As of 2021, ISTAT has adopted the Commission Implementing Regulation (EU) 2019/2240 in accordance with Regulation (EU) 2019/1700, which includes updates to some definitions, including those of household and employment status. For more details about these changes for Italy, refer to ISTAT (2022).

<sup>8</sup> The ILO defines an “employed” person as someone of working age engaged in any activity to produce goods or provide services for pay or profit.

<sup>9</sup> As stated by Goldin “the most reasonable estimate of what a group would have been doing in the absence of the pandemic is what the group had been doing in the same month in a previous, more normal, year” (Goldin, 2022: 9).

rates, we complement these statistics by computing relative changes in working conditions between the quarters of 2020 and 2019 by gender (Figure A3 in Appendix C).

Next, we examine how gender intersects with other characteristics, especially how socioeconomic characteristics are associated with the probability that women and men during the pandemic continued to be employed and working rather than losing their jobs (i.e., transitioning from being employed at  $t-1$  to being unemployed or inactive at  $t$ ) or losing working hours (i.e., transitioning from being employed at  $t-1$  to being employed and not working at  $t$ ) compared to 2019. Specifically, we employ a series of logistic regressions that include a three-way interaction term between time, sex, and one of the following variables separately: age classes (15–24, 25–34, 35–44, 45–54, 55–64), highest educational attainment level (lower secondary, upper secondary, and tertiary), citizenship (Italian *versus* foreign), type of household (single *versus* couples, further distinguished by the presence of any children), type of contract and permanency of the job (permanent contract, fixed-term contract, and self-employed),<sup>10</sup> and the economic sector according to the European Classification of Economic Activities (NACE Rev. 2).<sup>11</sup>

We limited this analysis to people who were employed in  $t-1$  because individuals who were inactive or unemployed in  $t-1$  were not susceptible to any observable employment loss or reduction. This is important to consider when examining gender differences because there are more inactive women in Italy than men. Focusing on the entire, unrestricted sample, we find that the reduction in employment during the pandemic was smaller for both men and women than the estimate based on the conditioned sample and that the reduction was especially smaller for women than for men (results not shown).

Finally, we focus on couple dynamics to examine the individual labor supply responsiveness to the job displacements of the partner during the pandemic year (i.e., the AWE). These analyses are performed at the couple level, considering different-sex cohabiting partners aged between 25 and 50 years old who were not students, retired, or unable to work in the year before the survey (N couples=27,018). The age restriction serves to avoid capturing transitions from education or to retirement. Using information about the partner's self-reported employment status one year prior to the survey, we determine whether the partner's job loss (i.e., transitioning from employed at  $t-1$  to not employed at  $t$ ) induces the other partner to enter employment (i.e., transitioning from not employed at  $t-1$  to employed at  $t$ ). To analyze the effect of the job displacement of one partner on the labor market adjustment of the other partner in 2020, we use binary logistic regression models that include an interaction term for quarter. Models also include controls at the individual and household level to account for a partner's age, highest educational attainment (lower secondary, upper secondary, and tertiary), presence and number of children in the household (no

<sup>10</sup> For those who do not have a job at time  $t$ , we use information from their employment contract and employment status one year before the survey. The employment status at  $t-1$  is unknown in 458 cases, which are excluded from the sample.

<sup>11</sup> We translated the Italian classification of economic activity (ATECO 2007) into the European Classification of Economic Activities (NACE REV. 2). When a person does not have a job at time  $t$ , we use information from the economic activity in which they were employed at  $t-1$ . We grouped together sectors that experience similar patterns in job loss and reduced working hours.

child, one, two, three or more children) and region of residence (northern, central, or southern Italy). To investigate any AWE associated with mechanisms of employment reduction, we also analyze the effect of a person's transition from employment at  $t-1$  to not employed and not working at  $t$  on their partner's transition from not employed at  $t-1$  to employed at  $t$  (Figure A4 in Appendix E). Unfortunately, the data does not provide information on the hours worked in the year prior to the survey. Consequently, the AWE cannot be studied in terms of adjustment along the intensive margins of labor supply.

## Results

### The Consequences of the COVID-19 Recession on Women's and Men's Employment

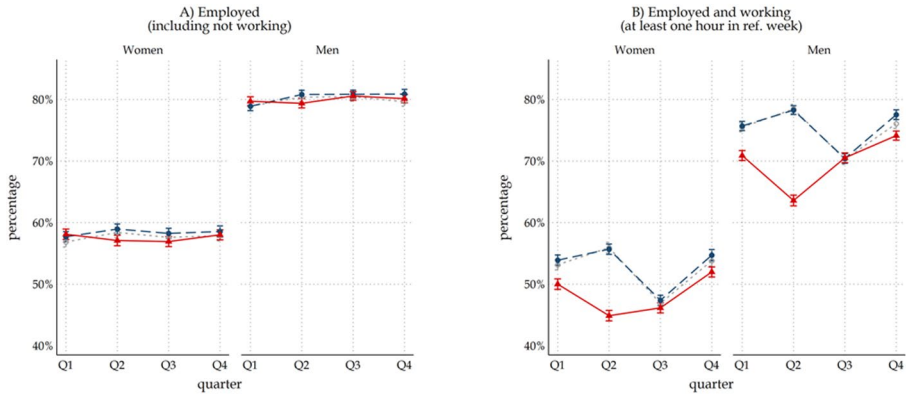
Figure 1 presents the descriptive statistics for employment rates and working hours. The upper panel shows employment patterns of women and men before and during the pandemic year. The figure also documents existing differences in employment participation of men and women prior to the pandemic, amounting to a difference of approximately 20% points. Given these striking differences in employment levels between men and women, to properly measure the consequences of the pandemic on women's and men's employment, we present the results in absolute terms.

Panel A displays the percentages of women and men who were employed—irrespective of whether they were working or not—in the week prior to the interview, throughout the various quarters of 2018–2020. Both women and men had lower employment rates during the national lockdown in the second quarter of 2020 compared to previous years, with women showing a slightly greater decline, as also confirmed by supplementary analyses on relative changes in employment (Appendix C, Figure A3). However, from the third quarter of 2020, employment rates began to recover and both women's and men's reached levels observed in previous years by the end of the year. Overall, the loss of employment in 2020 compared to the pre-pandemic period was relatively moderate, which is likely attributable to the furlough scheme implemented by the Italian government.

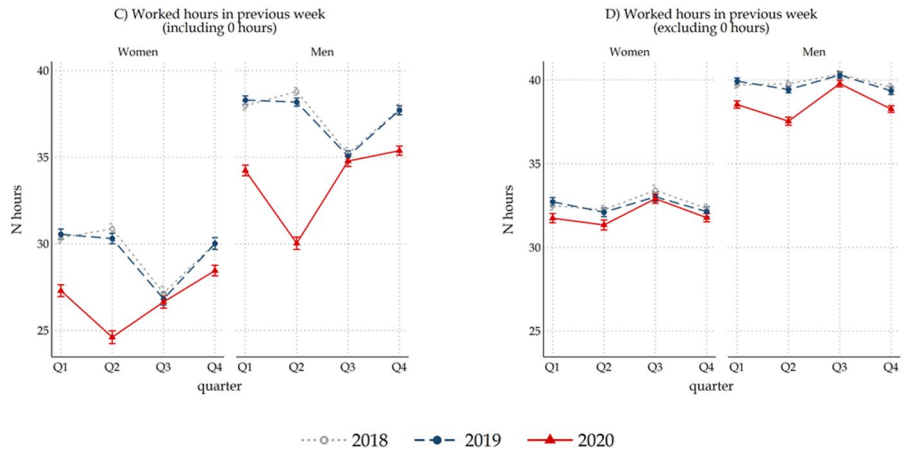
The results change considerably when looking at the percentage of employed women and men who reported working at least one hour in the week preceding the interview (employed and working). Panel B shows that the percentage of people employed and working declined already during the first quarter of 2020 and further dropped in the second quarter of 2020. The reduction was common to both women and men, but the decline was more pronounced for men, on average. Recovery occurred in the following quarter of 2020 for both women and men and by the end of 2020, the percentage of people employed and working reached levels similar to those in previous years.

A similar pattern to the one seen in panel B is observed when comparing the hours worked in 2020 to previous years. The bottom panel of Fig. 1 reports the average number of hours worked by women and men across quarters from 2018 to 2020, including both those who worked zero hours (panel C) and those who worked at least some hours (panel D). Working hours declined for both women and men beginning

### Employment rates



### Working hours



**Fig. 1** Employment patterns of women and men across quarters during 2018, 2019, and 2020. *Notes:* People aged 15–64, not a student, not unable to work, not retired ( $N=552,437$ ). Panel C includes people employed ( $N=378,356$ ). Panel D includes people employed and working a positive number of hours ( $N=341,670$ ). *Source:* Italian LFS 2018–2020, weighted estimates

in the first quarter of 2020, with a negative peak in the second quarter. By the third quarter, average hours returned to levels closer to previous years but then dropped again during the fourth quarter, concurrent with the second phase of the pandemic.

Overall, the pandemic in Italy led to a decline in hours worked (panel C). This was mainly due to the increase in the number of people who worked zero hours while remaining employed, whereas the reduction in the positive number of hours worked was of lower relevance (panel D). The decline in employment was relatively modest for both women and men, while the reduction in working hours, irrespective of whether or not we include those who were employed but worked zero hours, was greater for men than for women.

## A Dynamic View: Transitions out of Employment

Until now, the focus has been on employment patterns in a cross-sectional view, without considering individuals' previous employment situation. To investigate whether the results hold when considering individuals' changes over time, Table 1 reports the percentage of women and men who maintained or lost their jobs across quarters during 2019 and 2020 and the related percentage point differences between the two years. This analysis is constrained to individuals who were employed in the previous year (see Methods section for the reasons).

The results show that women generally experienced lower employment continuity compared to men, and consequently, a slightly higher risk for exiting employment. For instance, in the fourth quarter of 2019, almost 3.5% of women became inactive, in comparison to only 1.8% of men. In 2020, these gender differences attenuated, as there was a slightly stronger increase in job loss for men. Again, major changes occurred regarding those who kept working a positive number of hours. Specifically, the share of individuals who kept working in 2020 among those who were employed in 2019 declined considerably, mainly in the second quarter ( $-17.03\%$  points for women and  $-17.88$  among men). These trends were similar among men and women. At the same time, and in line with the cross-sectional results, there was an increase in the proportion of individuals who kept their employment but did not work throughout the quarters of 2020. Changes were similar for men and women ( $+13.9$  for women and  $+15.6$  for men in the second quarter); however, women started at higher levels. Extending the analysis to include people who were not employed at  $t-1$  substantially confirms the robustness of the cross-sectional results.

## The Interplay of Gender and Other Socioeconomic Characteristics

In Fig. 2, we investigate inequalities associated with individuals' socioeconomic characteristics across gender. Building upon the observation presented in Fig. 1, which highlighted the consequences of the pandemic mostly through working zero hours, we focus on assessing the effects of the pandemic on the probability of women (top panel) and men (bottom panel) being employed and working a positive number of hours in 2020. The analysis is limited to a quarterly comparison between 2020 and 2019, as no differences were observed between 2018 and 2019. Additional results on employment status are available upon request.

The results show that, alongside gender, other factors shape the effect of the pandemic on employment patterns. The increase in working zero hours documented in Fig. 1 involved all socioeconomic groups; however, some groups proved more vulnerable than others. A clear age pattern emerges, with younger workers being particularly hit by a reduction in active employment compared to older workers (panel A). Expectedly, the severity of the pandemic was stronger for the lower-educated (panel B) and hit single mothers more than any other household types (panel C). Regarding the characteristics of employment, people without a permanent employment contract—the temporary employed as well as the self-employed—were particularly affected (panel D). Since all economic activities other than essential ones were shut down at some point, the reduction of work also hit the workforce of specific sectors.

**Table 1** Percentage distribution of employment status at  $t$  for women and men employed and working at  $t-1$

	2019				2020				Percentage point difference between 2020 and 2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	<b>Women employed at <math>t-1</math></b>											
Employed and not working	6.4	5.45	18.27	6.45	13.16	19.35	18.35	9.88	6.76	13.9	0.08	3.43
Employed and working	87.69	89.63	76.14	87.86	81.3	72.6	75.23	83.75	-6.39	-17.03	-0.91	-4.11
Unemployed	2.32	2.05	2.05	2.22	1.78	2.31	2.51	2.3	-0.54	0.26	0.46	0.08
Inactive	3.6	2.86	3.54	3.48	3.75	5.74	3.91	4.07	0.15	2.88	0.37	0.59
<i>N</i>	13,396	14,039	13,963	13,192	13,360	14,591	13,844	14,324				
<b>Men employed at <math>t-1</math></b>												
Employed and not working	3.88	2.96	12.64	4.09	10.62	18.56	12.09	7.06	6.74	15.6	-0.55	2.97
Employed and working	92.32	93.67	83.86	92.23	85.29	75.79	83.26	88.59	-7.03	-17.88	-0.60	-3.64
Unemployed	1.94	1.83	1.57	1.9	1.84	2.12	2.35	2	-0.10	0.29	0.78	0.1
Inactive	1.87	1.54	1.93	1.77	2.25	3.53	2.31	2.35	0.38	1.99	0.38	0.58
<i>N</i>	16,973	17,903	17,905	16,816	16,912	18,172	17,414	18,003				

Source: Italian LFS 2019–2020, weighted estimates

Notes: Age group 15–64, not a student, not unable to work, not retired ( $N=370,366$ ). Table A2 in Appendix D provides the complete picture of labor market transitions from time  $t-1$  to time  $t$  for men and women during 2019 and 2020

People employed in construction, accommodations and food service activities, arts, entertainment and recreation, and other service activities were those most at risk of working zero hours during the first phase of the pandemic in Italy compared to people employed in other sectors (panel E). Last, in the second quarter of 2020, foreign men were more likely to be penalized compared to Italian men (panel F).

As the pandemic progressed, many of the highlighted negative impacts diminished. In the third quarter of 2020, the risk of working zero hours was similar to that of 2019 for most groups. However, women and men employed in sectors most affected by the economic downturn were still disproportionately affected. In addition, men aged 25–34 years old, single men, and men with fixed-term contracts were still significantly less likely to be working a positive number of hours compared to the previous year, while this was not the case for women.

In the fourth quarter of 2020, in conjunction with the second wave of closures, the negative effects were much less pronounced but generally concentrated in the same categories of workers: the least educated, single with cohabiting children, people with fixed-term employment contracts or the self-employed, and those employed in the aforementioned vulnerable sectors. Among the younger generations (aged 15–34), female workers fully regained levels of active employment by the end of the year, being as likely to be employed and working a positive number of hours in the fourth quarter of 2020 as they were in the same period in 2019. However, young men did not experience the same recovery, as their levels of active employment in the fourth quarter of 2020 remained lower than the previous year. Furthermore, migrants' (additional) disadvantage in the labor market during the pandemic was mitigated during the second wave of the pandemic, as the loss of work among migrants by the end of 2020 was comparable to that of native workers.

Overall, some categories of women were more affected by the pandemic than men with the same characteristics, while some categories of men had to cope with stronger consequences compared to similar women. Specifically, statistically significant gender differences in the impact of the pandemic on active employment emerged for women with less than a secondary education, and they were more likely than men to work zero hours during the second quarter of 2020. In addition, single mothers experienced a more substantial negative impact on working zero hours than single fathers during the second, third, and fourth quarters of 2020. However, single men without children and those with secondary education had higher risks of working zero hours (in the second quarter of 2020), and male migrants were more affected than female migrants. For other combinations, no significant gender differences were found within specific categories in any of the quarters.<sup>12</sup>

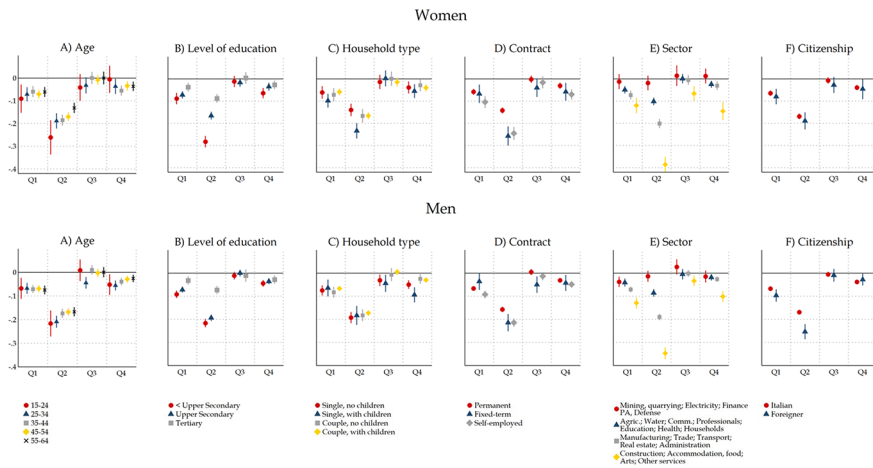
### The Couple Perspective

An important aspect influencing employment situations is partnership status and the partner's employment characteristics. Partners may influence each other and adjust their labor supply to compensate for a partner's eventual job loss. We investigate

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<sup>12</sup> Based on nonlinear t-tests to test whether the impact of the pandemic on employment differed by gender across socioeconomic groups.





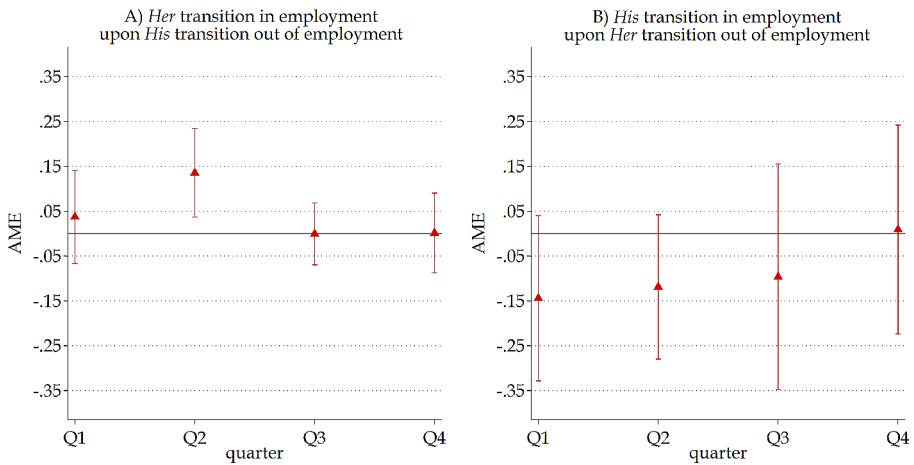
**Fig. 2** Effect of the pandemic on being employed and working (at least one hour in the reference week) by gender across socioeconomic groups. *Source:* Italian LFS 2019–2020, weighted estimates. *Notes:* AME of 2020 versus 2019, resulting from logistic regressions predicting being employed and working (at least one hour in the reference week). All models include interaction with gender and controls for population composition in terms of age, level of education, household type, type of contract, migrant background, and region of residence. Age group 15–64, not a student, not unable to work, not retired, and employed at  $t-1$  ( $N=250,349$ )

whether the employment loss of one partner leads to the other partner entering the labor market, known as the AWE. Controlling for the same individual and household-level characteristics used in Figs. 2 and 3 reports the average marginal effects (AME) of a partner’s transition out of employment on the transition into employment of the female (panel A) and male (panel B) partner.

We find little evidence for an AWE during 2020, with one exception. During the second quarter of 2020, when the pandemic’s effects on employment were most pronounced (see Fig. 1), women’s employment increased by almost 15% points when their male partners lost their jobs. This effect underlines the pivotal role of women’s labor supply to compensate for market risks, not just among those already working but also as a strategy to counterbalance income loss by adjusting the couple’s labor supply.

### Summary and Conclusions

This paper investigated the extent to which women’s and men’s employment was affected by the COVID-19 pandemic in 2020 in Italy. Using quarterly data from the Italian Labor Force Survey, we examined changes in women’s and men’s employment status, actual hours worked, and transitions in and out of employment between 2018 and 2020. Different from prior studies on Italy, which relied on surveys conducted during the pandemic or focused solely on the active workforce (Del Boca et al., 2020; Casarico & Lattanzio, 2022), our research employed comprehensive official statistics covering the entire workforce for multiple years. This approach allowed



**Fig. 3** Effect of partner's job loss on the transition into employment for women (**A**) and men (**B**) during 2020. *Source:* Italian LFS 2020, weighted estimates. *Note:* Panel (**A**) AME of His transition from employed at  $t-1$  to not employed at  $t$  on Her transition from not employed at  $t-1$  to employed at  $t$  ( $N=8,734$ ). Panel (**B**) AME of Her transition from employed at  $t-1$  to not employed at  $t$  on His transition from not employed at  $t-1$  to employed at  $t$  ( $N=1,079$ ). Controls include partners' age, education, number of children, and region of residence. Couples with partners aged 25–50, who in the year before the interview were not students, retired, or unable to work. Figure A4 in Appendix E provides further results on employment reduction

us to assess not only whether the pandemic impacted men and women differently but also how various individual socioeconomic characteristics and couple dynamics influenced these effects. Moreover, our study differs from that of Bettin et al., (2023) as we employed a reasoned counterfactual scenario comparing pandemic year quarters with pre-pandemic quarters to minimize confounding factors and eliminate seasonal variations from the analysis. Due to data availability constraints, we were unable to explore the employment dynamics of same-sex couples.

Results from our analyses show that the pandemic led to a significant increase in the number of workers who did not work although they remained employed, while the decline in employment rates was very modest and much less pronounced than in other countries. This can at least in part be attributed to the firing ban implemented by the Italian government as well as the massive extension of short-time working schemes, which allowed individuals to maintain employment even while not working and covered salaries at least partly. However, the increase in the number of people who worked zero hours suggests that many experienced not only a reduction in hours but also a decrease in earnings due to the pandemic. Compared to the risk of employment loss (more common in countries such as the United States), remaining employed but not working is certainly the lesser evil, even though it entails an earnings loss of at least 20%.

In Italy, gender differences in the decline in employment and working hours were less pronounced than in other countries. On average, more men than women remained employed working zero hours, while the modest reduction in employment was similar for women and men. Women faced a slightly stronger decline in employment than men in the second quarter of 2020, but returned to similar levels as previous years in

the following quarters. However, even a slight decline in female employment raises concerns in Italy, given the country's already low rate of female employment and existing barriers to women's workforce participation. Therefore, throughout the pandemic, the decline in female employment remained a major concern.

The implementation of policies likely helped mitigate the decline in employment, as also observed in the United Kingdom and Germany (e.g., Adams-Prassl et al., 2020; Hupkau & Petrongolo, 2020; Globisch et al., 2022). The weaker decline in female employment in Italy can also be partly attributed to the composition of the Italian economic sector, where, unlike in other countries, women are employed more than men in sectors that were deemed essential during the pandemic (Brini et al., 2021b). Despite women facing greater adverse effects in the economic aftermath of the pandemic compared to previous economic recessions (Ghignoni & Verashchagina, 2016), gender differences in paid work during the pandemic were relatively modest. Therefore, the pandemic in Italy was both a she-cession and a he-cession.

Rather than following a clearly gendered pattern, the most significant disparities in the pandemic's impact on occupation were associated with other socioeconomic factors. The pandemic hit traditionally less advantaged social groups such as migrants, those with lower levels of education, and individuals employed under non-permanent contracts, which are primarily composed of labor market entrants. These socioeconomic inequalities added to already high, preexisting gender differences in the Italian labor market and partly intersected with them, shaping the gendered employment patterns observed during the pandemic. Specifically, women with less than a secondary education and single mothers were more adversely affected in terms of active employment compared to men with similar educational backgrounds and single fathers. Therefore, the implemented policies, though effective to some extent, were not sufficient to buffer entirely the impact of the pandemic—particularly for women with lower levels of education and single mothers—let alone to reduce preexisting inequalities.

Still, many groups of women and men maintained similar levels of employment in 2020 as in previous years and some women even increased their employment in 2020 by counterbalancing their partner's employment loss. This result is in line with previous research conducted in Italy and other countries, which shows a rise in female-breadwinner households during the pandemic (Brini et al., 2021a, b; Qian & Hu, 2021) and underlines the crucial role that women play in sustaining household income during times of crisis.

While women demonstrated apparent resilience during the pandemic, it is essential to recognize that this narrative can obscure the challenges they faced and in fact highlights specific risks. The Italian social system heavily relies on the family as the primary producer and provider of welfare (Esping-Andersen, 1990; Moreno, 2002)—also in absence of a crisis. A broad body of literature shows a significant increase in women's unpaid work during the pandemic, as women took on more responsibilities as primary housekeepers and caregivers compared to men, particularly during the first half of 2020 (Del Boca et al., 2020; Sánchez et al., 2021; Zamberlan et al., 2021, 2022). From this perspective, coupled with the observation that not all women experienced a greater decline in employment compared to men, the pandemic exacerbated existing gender disparities in Italian society not just by affecting gender asymme-

tries in the division of domestic roles but also by reinforcing the societal expectation placed on women to successfully balance household responsibilities, childcare duties, and professional work.

Balancing multiple responsibilities, coupled with the expectation of effortlessly achieving unattainable standards, can have detrimental effects on women's mental and physical well-being as the resulting heightened levels of stress, burnout, and work–life imbalance can lead to long-term negative consequences. The portrayal of Italian women during the pandemic suggests that they bore a greater burden than men precisely due to their participation in the labor market, and not because they were excluded from it.

A relevant extension of this study would be to consider household income and subjective stress and strain—information that is not available or not provided in sufficient detail in the data of this study. Future research could expand upon these limitations by integrating the analysis with a specific focus on household income, providing a deeper insight into how gender disparities manifest within different sociodemographic groups and on different dimensions of economic well-being. Despite these limitations, this paper suggests how important the various policy interventions were in limiting the pandemic's impact on rising inequalities—between men and women and across other preexisting cleavages in society.

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s11113-024-09878-3>.

**Funding** Open access funding provided by Università degli Studi di Firenze within the CRUI-CARE Agreement. The authors have no relevant financial or non-financial interests to disclose. Open access funding provided by Università degli Studi di Firenze within the CRUI-CARE Agreement.

**Data Availability** All datasets used for analyses are available from <https://www.istat.it/it/archivio/127792>.

## Declarations

**Conflict of interest** The authors have no conflicts of interest to declare that are relevant to the content of this article.

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