

Gender gaps in the labor market impact of the COVID-19 pandemic

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EXECUTIVE SUMMARY

Gender gaps in the labor market impact of the COVID-19 pandemic are closely linked to the policies implemented to contain the spread of the virus, such as school and workplace closures, and the negative effects on the economy, such as financial support for short-time workers. This is shown by a detailed analysis of the gender gaps in the labor markets of Spain, the United Kingdom, and the US, analyzed since the beginning of the pandemic:

- While Spain and the UK do not show large gaps between men and women in job loss, it does show that **women have been more likely to be on short-time work and, in Spain, were more likely to move into economic inactivity.**
- The most notable gaps in both countries were concentrated among households with children under 16 years of age and **tended to coincide in time with school closures:**
 - **In Spain, it was women with children who suffered an increase in economic inactivity compared to men.** This effect lasted until the end of September 2020.
 - In the UK, we observe only among those with children a persistent and significant gender gap in the short-time work rate extending to the first quarter of 2021. However, there is no gap among those without children.
 - **The observed gaps among those with children seem to disappear as school closures come to an end.**
- In the US, the gender gaps are much more pronounced and pervasive: women were more likely to have lost or left their jobs, and more likely to have become economically inactive. This effect has been persistent over time through the third quarter of 2021.
- Moreover, the differences in the US are again concentrated among those with children. Mothers are more likely to have lost or left their jobs, and are much more likely than fathers to move into economic inactivity. This effect persists from the second quarter of 2020 through the third quarter of 2021.
- In the case of the US, **the combination of longer school closures and less generous employment protection policies is likely to be the cause of much deeper and sustained gender gaps in households with young children.**

While gender differences in the impact of the crisis on the labor market may end up being transitory, the evidence provided by different studies suggests that gaps in domestic work, especially in childcare, have increased substantially and in a more lasting way during the pandemic.

All of this leads us to recommend that policymakers give greater consideration to the adverse effects of school closures not only on children's learning, but also on gender equality in both the labor market and the home in order to avoid reversing decades of progress in this area.

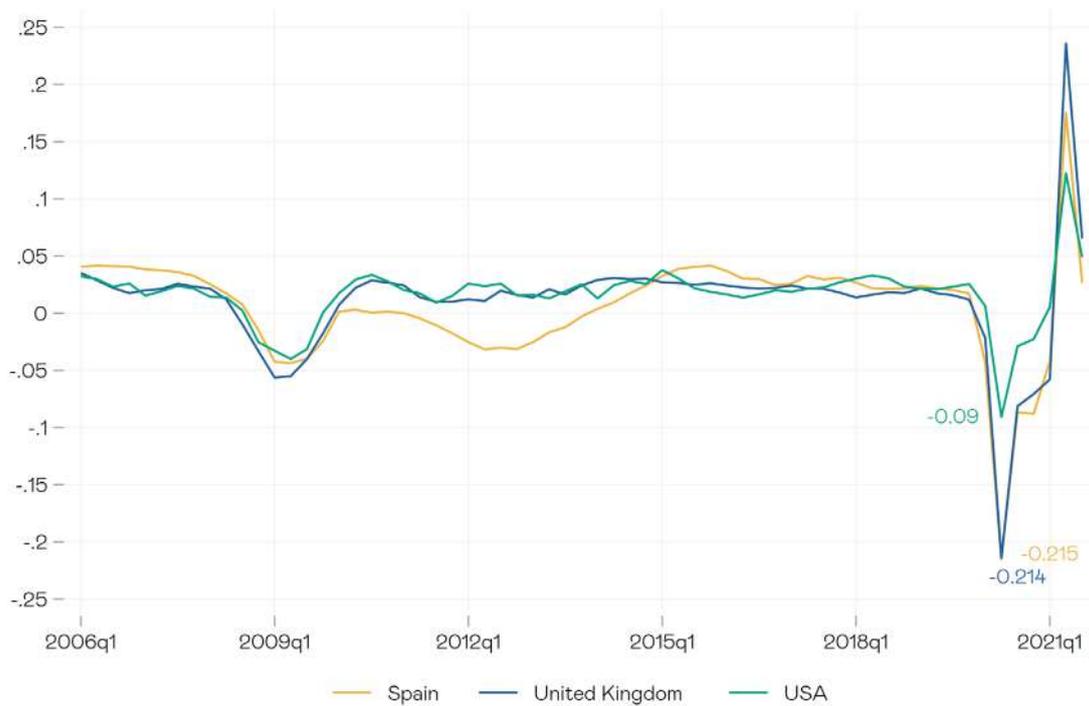
In parallel, companies should ensure that new flexible work arrangements, such as increased teleworking, are adopted equally by men and women. Otherwise, they risk reinforcing women's specialization in housework and childcare. Policymakers need to be aware of this and work with the private sector to ensure that innovations in flexible work do not result in greater gender inequality in the future.

The COVID-19 pandemic has brought about an unprecedented shock to economies worldwide. GDP fell by more than 21 percent in Spain and the UK, and by nearly 10 percent in the US in the second quarter of 2020 (Figure 1), making the 2007-2009 global recession look harmless. Millions of workers have been laid off or put on short-time work while pandemic-related social distancing measures were or still are in place.

Contrary to previous recessions, which tended to be characterized by larger employment losses for men and increases in labor force participation for women to compensate for male earnings losses (Alon et al., 2020, 2021; Albanesi and Kim, 2021), women have been harder hit by employment losses than men - at least in some countries - this time around. On the one hand, this can be explained by the fact that women tend to be overrepresented in jobs in service sectors that were subject to prolonged, strict lock-downs (Alon et al., 2020; Hupkau and Petrongolo, 2020; Hupkau and Victoria, 2020). On the other hand, school and nursery closures have meant substantial increases in childcare burdens for families, which have been shouldered disproportionately by women (Farré et al., 2020; Hupkau and Petrongolo, 2020; Sevilla and Smith, 2020), often at the expense of their work time.

In this policy brief, we compare the labor market impact of the COVID-19 crisis over time from a gender perspective for three countries: Spain, the UK, and the US. We will compare the evolution of employment, short-time work, and inactivity of women and men with and without children since the onset of the pandemic. We then link the observed patterns to public policies implemented in the respective countries to contain (1) the spread of the virus, such as school closures and sector shut-downs, and (2) the negative effects on the economy, such as income support for short-time workers. We then discuss the implications for gender inequality in the future and how policymakers can better consider the trade-offs between curbing the pandemic and jeopardizing the advancements that have been made in the way of gender equality in the labor market

Figure 1. **Quarterly real GDP growth in percent (year-on-year change) | Spain, UK, and US**



Notes: This figure shows the evolution in the GDP year-on-year growth rate for Spain, UK and US. Source: OECD (2022), Quarterly GDP (indicator). doi: 10.1787/b86d1fc8-en (Accessed on 07 February 2022)

Did the pandemic affect men and women unequally?

Several studies have assessed whether women or men have been more negatively affected by the COVID-19 pandemic. Early evidence for the US and the UK suggested that, indeed, women were more likely to have lost their jobs (Adams-Prassl et al., 2020), while others did not find an unequal effect across genders for the UK (Hupkau and Petrongolo, 2020). For Spain, Farré et al. (2020) find that at the onset of the pandemic, women were slightly more likely to have lost their jobs. As the crisis evolved, the initially observed gender gaps became more nuanced. Bluedorn et al. (2021), for instance, show for 38 advanced and emerging market economies that gender differences in the impact of COVID-19 tended to last only about one to two quarters in most cases, and that not everywhere women were hit harder than men. Overall, the gendered impact of the pandemic on labor market outcomes varied a lot from country to country and, in many cases, it seems to have been only short-lived.

Using the most recent available data for Spain, the UK, and the US, we update the existing evidence on the gendered impact of the COVID-19 pandemic and its evolution over time. To assess the importance of the presence of children, we will be looking separately at the gender gap among people with children and among those without children in terms of employment, short-time work (or furlough), and inactivity.

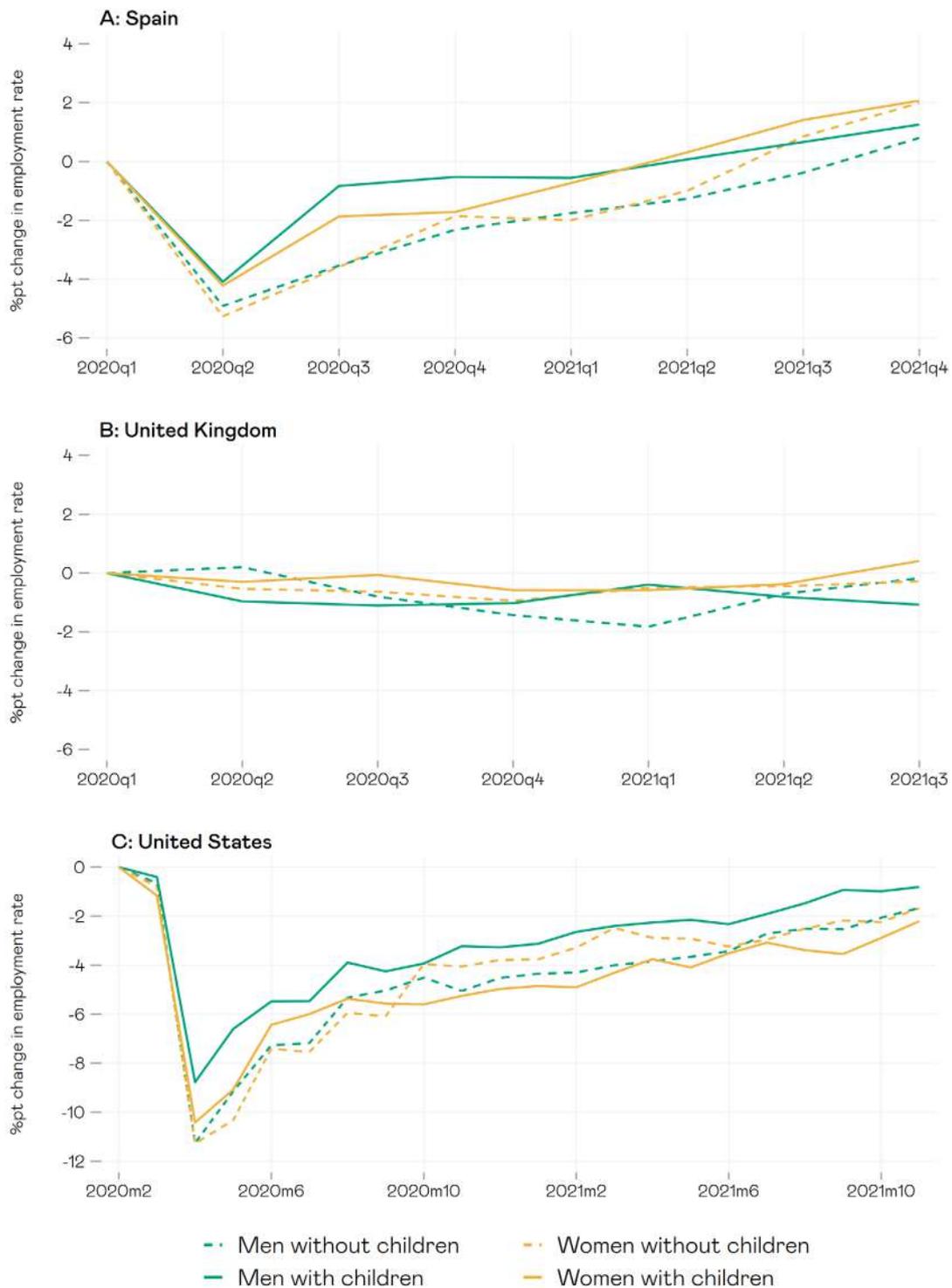
Employment. The first indicator we analyze is the employment rate, which measures the share of the adult population that is in work. We look at this rate among the prime-aged population (aged 25-54), as our interest lies in the part of the population that is in child-bearing age or is likely to have young kids living with them.

Figure 2 shows the percentage point change in the employment rate for men and women with and without children since the onset of the COVID-19 pandemic for Spain, the UK, and the US. The reference period is the first quarter of 2020 for the UK and Spain, and February 2020 for the US. For Spain (Figure 2A), we can see that the reductions in the employment rate between April and June 2020 (second quarter of 2020) show no gender gaps: They amounted to about four percentage points for both men and women with children, and about five percentage points for men and women without children. In the third and fourth quarters of 2020, employment rates start recovering for all. However, they recover faster for men with children than for women with children and a gender gap (of about 1 percentage point) emerges. This gender gap, however, disappears and even reverses from the second quarter of 2021 onward. By the fourth quarter of 2021, employment is two percentage points higher than at baseline for women with children, compared to only about one percentage point higher for men with children. Among the childless, we observe a similar gender gap in favor of women by the third quarter of 2021. Figure A.1A shows coefficients from event study estimates of the gender gap in the evolution of the employment rate, separately for people with and without children. A positive value of the coefficient indicates that women were less affected, while a negative value indicates that the change with respect to the pre-pandemic scenario was more negative for women.¹ We can see from these graphs that none of the observed gaps is statistically significantly different from zero at the 95 percent confidence level. The exception is the last quarter of 2020, where women with children had a higher reduction in employment compared to baseline than men with children, which is however only significant at the 10% level.

The picture in the UK, shown in Figure 2B, is different. First, employment losses are generally much lower than in Spain, reaching only one percentage point (for men with children) or less in the second quarter of 2020, and never exceeding two percentage points since the onset of the pandemic. Second, the employment rate among women with children dropped by only half a percentage point in the second quarter of 2020, compared to one percentage point for men with children. It is not until the first quarter of 2021 that employment reductions relative to the reference period are slightly larger for women with children than for men with children. By the third quarter of 2021, female employment was up, while that of men with children was still one percentage point below the pre-pandemic level. To sum up, in the UK we do not find a persistent gender gap in the impact of the pandemic on employment. If anything, women with children were less negatively affected by employment losses. Figure A.1B shows coefficients from event study estimates of the gender gap in the evolution of the employment rate, separately for people with and without children. We can see from these graphs that none of the observed gaps is statistically significantly different from zero at the 95% confidence level.

1 The event study estimates show the change in the variable under study with respect to the baseline period. The point estimates in the graphs correspond to the coefficients of the interaction terms between quarter dummies and a female dummy (the $\alpha_{3,k}$'s in equation A.1, where k indicates the quarter and year of the effect.)

Figure 2. Changes in the employment rate since the onset of the pandemic



Notes: This figure shows the change in the employment rate, defined as the share of people in employment over the total adult population aged 25-54, since the beginning of the pandemic for both men and women, and separately by whether they have children under the age of 16 living in the household. For the US, it is defined as those individuals living with children aged 13 and below. The baseline period is the first quarter of 2020 (Spain and UK) and February 2020 (US). Sources: Spain: Q1/2020-Q4/2021 of the EPA (Spanish Labor Force Survey); UK: Q1/2020-Q3/2021 of the UK Labor Force Survey; US: 2/2020-11/2021 of the Current Population Survey (CPS). All data are seasonally adjusted.

Moving to the US (Figure 2C), we can clearly appreciate a much higher impact of the pandemic on the employment rate, which had dropped by more than 10 percentage points for women with children, and by almost 9 percentage points for men with children by April 2020. The implied gender gap among the prime-aged population with children amounted to almost two percentage points and remained relatively stable all the way up until November 2021, the latest month we have data for. While overall childless women and men faced similar reductions in employment, we do not observe a prolonged gender gap in this group, and by the first quarter of 2021, childless women's employment was less impacted than that of childless men. This suggests that the presence of children is likely to have exacerbated the negative impact of the pandemic among women in the US. As we show in Figure A.1C, the gender gap among people with children is statistically significant until the third quarter of 2021, with women being significantly more negatively affected. Among women without children, a significant gender gap is only observed for the second and third quarters of 2020, and again in the third quarter of 2021.

As we will discuss below, policies in the US to combat the economic and labor market impact of the pandemic, as well as measures to curb the spread of the virus, were quite different over time than those in Spain or the UK. We believe that these policy differences might play a role in explaining the different patterns in gender gaps in the US versus Spain and the UK when it comes to the impact of the pandemic on employment.

Short-time working. We now turn to analyzing gender gaps in the prevalence of short-time work, or furloughing, comparing men and women with children and men and women without children. We focus this analysis on Spain and the UK, as the US did not have a nation-wide, uniform short-time work scheme in place, which complicates its measurement in official data. We use both national Labor Force Surveys as well as administrative data to analyze gender gaps.

Short-time work refers to a situation in which a worker is temporarily laid off but maintains his employee relationship with his employer. Salaries are largely paid for by the government while workers are on short-time work. In Spain, short-time work could be full- or part-time. The UK only allowed full-time furloughing until June 2020, and introduced part-time furlough in July 2020. A priori, women might be expected to have been more affected by furlough in Spain and the UK because they are over-represented in sectors that were most severely hit by lock-downs and social distancing regulations (Hupkau and Petrongolo, 2020; Hupkau and Victoria, 2020).

Figure 3 shows the number of people on short-time work and the share of employees on furlough by gender for Spain and the UK using administrative data. In line with what could be expected a priori, both in absolute terms as well as when using the share of employees on short-time work, women are consistently more likely to have been on furlough in Spain and the UK (until May 2021 for the case of the UK), with a larger gap in the UK than in Spain. Administrative data does not allow us to analyze subgroups of people with and without children in the household. We therefore complement the analysis of short-time work with data from the Spanish and UK Labor Force Surveys.²

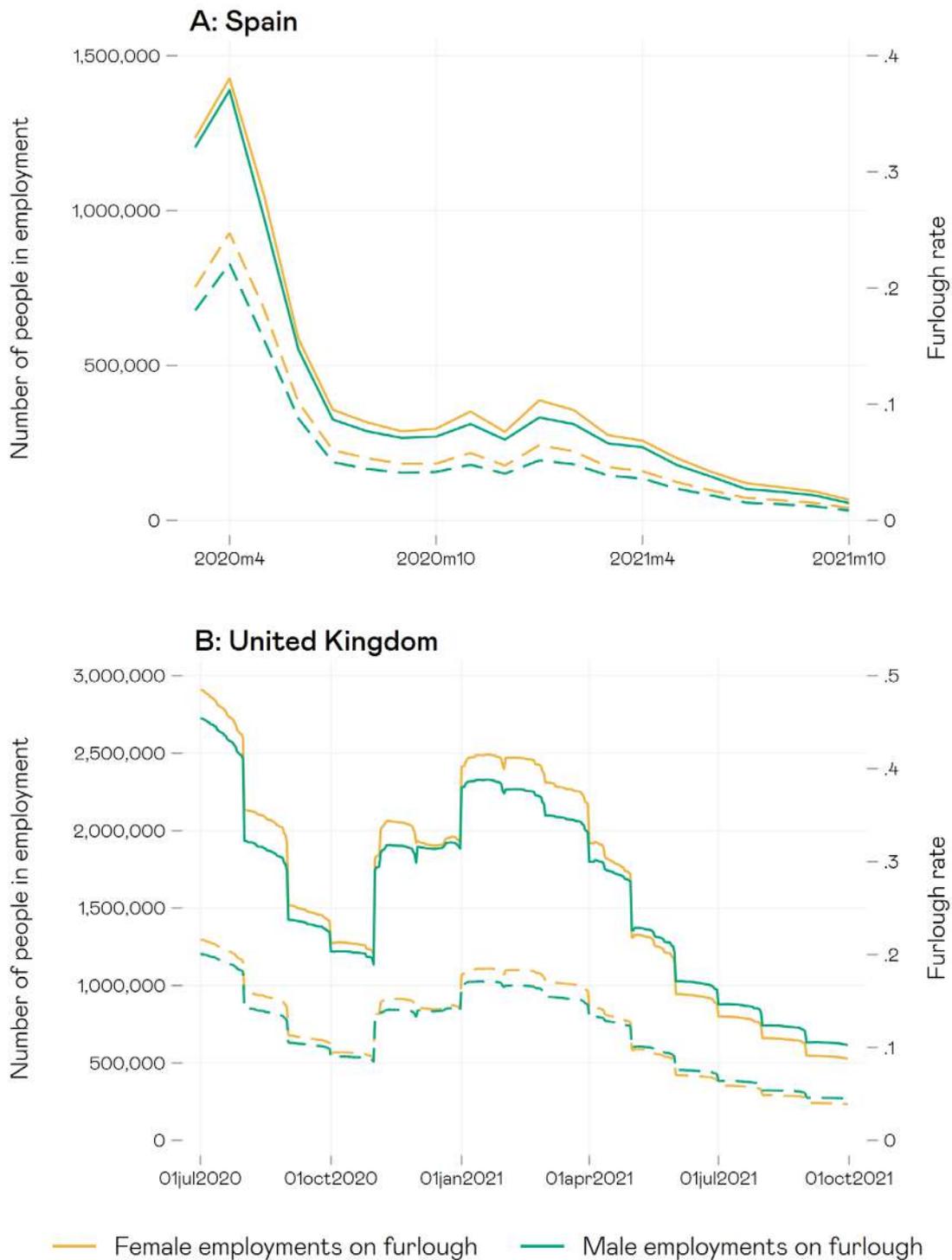
2 Both the Spanish Labor Force survey (EPA) as well as the UK Labour Force Survey (LFS) have their limitations when it comes to the measurement of short-time working. Short-time working in these surveys can only be identified by using the combination of two variables: Whether the worker had temporarily been absent from work in the reference week, and whether the reason they had been absent was related to COVID-19. There is no direct question on being currently on either ERTE (Spain) or furlough (UK) in these surveys.

Figure A.2 in the appendix shows the estimates of the gender gaps in the evolution of the short-time work rate, separately for those with and those without children in the household. For Spain (Figure A.2A), we find similar gender gaps among people with and without children, the former lasting from the second to the third quarter of 2020, the latter lasting only throughout the second quarter of 2020. For the UK (Figure A.2B) we can see that there is no gender gap among people without children in the household, while women with children are consistently more likely to have been on short-time work all the way until the first quarter of 2021.

To sum up, both survey data and administrative data suggest that there has been a gender gap in the short-time work rate for both Spain and the UK. While one of the driving factors of these gender gaps is the fact that women tend to be over-represented in sectors that were subject to strict lock-downs, this does not explain why the gap seems to have been concentrated among people with children, especially in the UK. Anecdotal evidence from the UK suggests that women were more likely to have been put on furlough than men in the same jobs when children were present. Employers considered that females necessarily were responsible for childcare in the home and could not possibly combine this with work. This is supported by evidence from survey data, which suggests that women took on a larger share of childcare (Hupkau and Petrongolo, 2020) and suffered a larger mental health deterioration and worries during lock-downs than men (ONS, 2021).

Inactivity. While above we have seen small and short-lived gender gaps in employment reductions for Spain and the UK, and a quite large and persistent gender gap in the US, the next section will look at a different margin of adjustment: moving into economic inactivity (Figure 4). The inactivity rate measures the share of the population outside the labor force, i.e. those that do not work and are not currently looking for a job.

Figure 3. Short-time work since the onset of the pandemic



Notes: This figure shows the evolution in the number of employees on furlough (in Spain, on ERTE) by sex. Sample of individuals aged 25-54 (Spain) and 16-64 (UK). Source: TGSS Statistics (Spain) available at https://w6.seg-social.es/PXWeb/pxweb/es/?_ga=2.14478903.1830744312.1644918747-34031772.1644918747 (Accessed on 15 February 2022), HMRC CJRS time series (UK) available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1040606/CJRS_Statistics_16_December_2021_-_Extension_2_reference_tables.xlsx (Accessed on 16 February 2022).

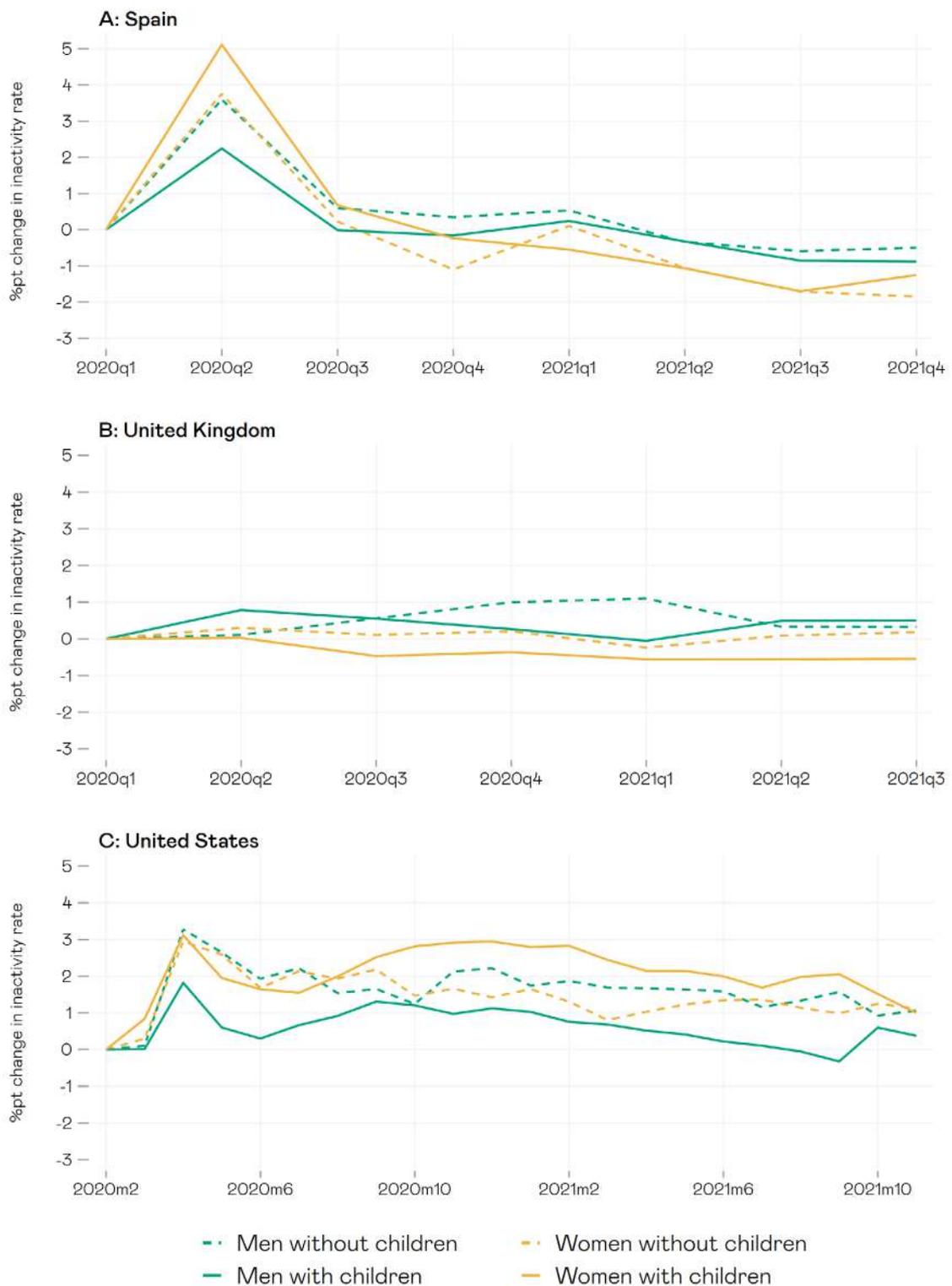
Figure 4A shows the results for Spain. While no gender gap is noticed in the second quarter of 2020 for those without children, the inactivity rate for women with children increased by five percentage points, which amounted to three percentage points more than the increase experienced by men with children. Figure A.4A shows the event study estimates for the gender gaps in inactivity rates for people with and without children in the household. Only the gender gaps for people with children in the second and third quarters of 2020 are statistically significantly different from zero and amounted to about three and two percentage points in these periods, respectively. For both men and women, inactivity rates reverted to baseline levels during the second half of 2020, and further decreased in subsequent months. The latest data shows that both men and women are below baseline, meaning that they are more likely to be active in the labor market than they were before the pandemic. Moreover, this decrease in inactivity rates has been slightly stronger for women.

The UK data suggests that there has been little variation in inactivity rates since the beginning of the pandemic (Figure 4B). If anything, men have been more likely to be above baseline on average, whereas the change in inactivity rates for women has been very limited across quarters. At the end of the year 2021, men with and without children and women without children were marginally more likely to be inactive relative to baseline, whereas inactivity rates for women with children had decreased. However, none of the gender differences in the change in the inactivity rate is statistically significantly different from zero, as can be seen from Figure A.4B.

In Figure 4C, we show the results for the US. Contrary to what we see in Spain and the UK, a clear pattern is observed: while there is no significant gender gap among men and women without children, increases in the inactivity rate for mothers have been systematically higher than those for fathers by about one to two percentage points. This gap became the widest in September 2021, when women with children were two percentage points more likely to be inactive relative to baseline and men were slightly below baseline levels. However, by the end of 2021 this gap had reduced due to a relative increase in inactivity rates for men with children. Figure A.4C shows the event study estimates of the gender gaps for women with and without children. The gender gap is positive and statistically significantly different from zero for individuals with children for the whole period of analysis, except for the last quarter of 2021. For those without children in the household, we do not observe a gender gap, except for the third quarter of 2020.

Overall, it is again the US where the labor market adjustment seems to have been largest among women with children. We observe a move from employment into inactivity rather than unemployment. Women with children seem to have given up their jobs (and are not trying to find a new one) disproportionately to meet the increased childcare burdens, sustained by school closures that were much more extensive in the US than in the UK or Spain, as we will see below.

Figure 4. Changes in the inactivity rate since the onset of the pandemic



Notes: This figure shows the change in the inactivity rate, defined as the share of people not in work and not looking for a job over the total adult population aged 25-54, since the beginning of the pandemic for both men and women, and separately by whether they have children under the age of 16 living in the household. For the US, it is defined as those individuals living with children aged 13 and below. The baseline period is the first quarter of 2020 (Spain and UK) and February 2020 (US). Source: Q1/2020-Q4/2021 of the EPA (Spanish Labor Force Survey) microdata (Spain), Q1/2020-Q3/2021 of the UK Labor Force Survey (UK), 2/2020-11/2021 of the Current Population Survey (US).

To sum up, the evidence presented so far shows that:

1. **The labor market impact of the pandemic in terms of employment losses was generally much lower in Spain and the UK than in the US.**
2. **In Spain and the UK, we do not find a significant gender gap in the employment impact of the pandemic, while in the US it was quite extensive, persistent and concentrated among men and women with children.**
3. **Women with children were more likely to move into economic inactivity than men with children, especially in the US and in Spain (in the case of the latter, only at the beginning of the pandemic).**
4. **Women were overall more likely to have been put on short-time work in Spain and the UK. In the UK, the gender gap in the short-time work rate was concentrated exclusively among individuals with children and was persistent over time until the first quarter of 2021.**

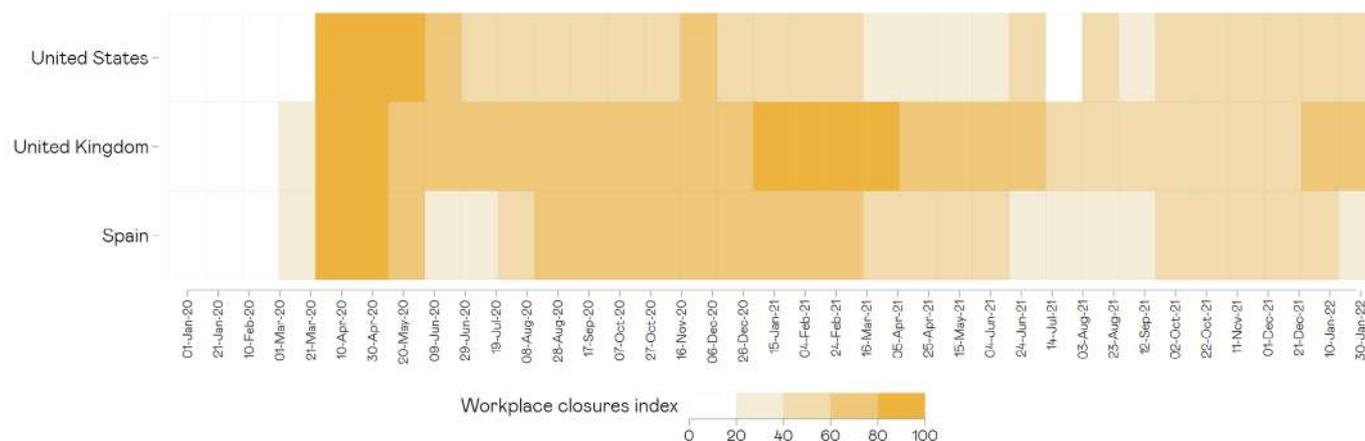
We next look at the public policy responses implemented in the three different countries, with the aim of understanding potential differences driving gender gaps in the labor market during the pandemic.

Policy responses and the gendered impact of the COVID-19 pandemic

In the previous section, we have seen that the labor market impacts of the pandemic differ substantially across countries. In the US we have seen particularly pronounced gender gaps among households with young children when it comes to moving out of employment and into inactivity. In Spain and the UK, we have seen a higher incidence of furloughing among women. In the case of the UK, this was concentrated among those with children and persisted up until one year after the onset of the pandemic. Might differences in the policy responses across these countries play a role in explaining these patterns? To answer this question, we first describe policy responses for the three countries, and then relate them to the evolution of gender gaps in the labor market impact during the pandemic. We draw on the data from the Oxford COVID-19 Government Response Tracker (Hale et al., 2021) to compare both the temporal extension and intensity of different policies implemented across the three countries under study.

Sector shut-downs. One of the first policy responses implemented was the closing down of activities that were not deemed as essential. In both Spain and the UK, around mid-March very strict lock-downs were introduced, whereas responses in the US were heterogeneous across states and differed in timing and stringency.

Figure 5 shows the evolution of indicators for such policies in the three countries we are looking at from the beginning of the pandemic. The indicator corresponds to an index ranging from 0 to 100, where a higher value represents a higher level of severity in workplace closures requirements. We observe that, whereas all three countries implemented similar lock-down measures in terms of severity and geographical scope during March 2020, some differences arose in the following months. Broadly, restrictions became gradually more relaxed in all three countries from late spring 2020 onward until today, with the exception of the UK, where workplaces experienced another lock-down in January 2021 with similar characteristics to those in March 2020.

Figure 5. **Workplace closures**

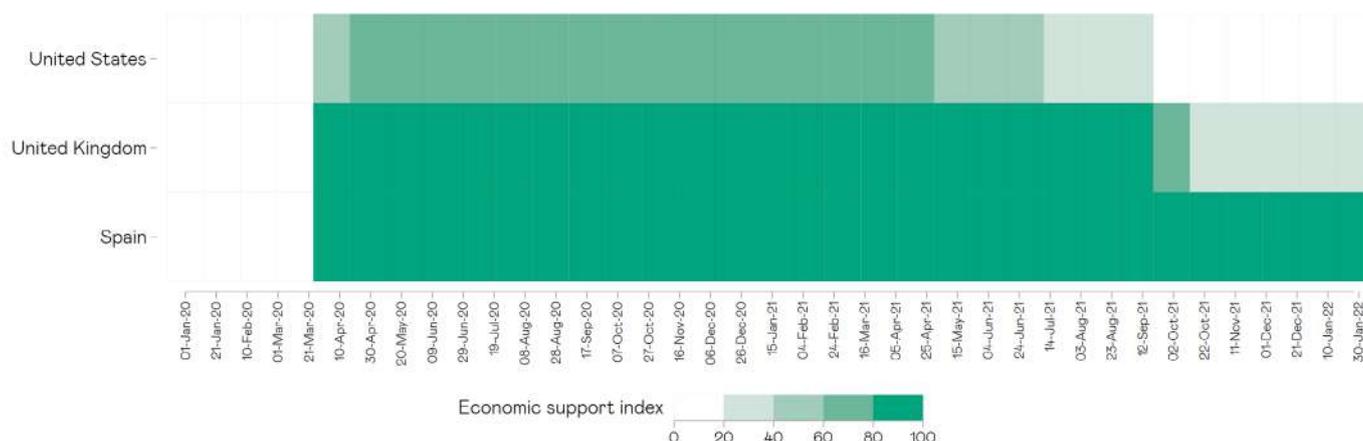
Notes: This figure shows the evolution of workplace closure requirements since the onset of the pandemic for Spain, the UK, and the US. The workplace closure index is a composite measure that integrates all within-country workplace closure mandates and weights them according to their severity and geographical reach. The indicator corresponds to an index ranging from 0 to 100, where a higher value depicts more stringent measures. The index has been computed using the formula detailed in the Oxford COVID-19 Government Response Tracker Index methodology (version 3.7), available at https://github.com/OxCGRT/COVID-policy-tracker/blob/master/documentation/index_methodology.md. Source: Hale et al. (2021).

If employment shares of women and men differ substantially across sectors, for instance if women are over-represented in the hospitality sector, then we would expect sector shut-downs to affect female employment and/or short-time work rates more severely. In all three countries, women are over-represented in locked-down jobs. However, they are also over-represented in jobs that can be done from home, potentially offsetting the negative effects of sector-shut downs (Hupkau and Petrongolo, 2020; Hupkau and Victoria, 2020; Alon et al., 2020). Moreover, Spain and the US had a very similar extension and intensity of sector shut-downs, yet the gender gaps in the employment effects and the impact on the gender gap in inactivity across the two countries were very different. For example, while Fabrizio et al. (2021) find that the type of industry has been a major driver of the impact on employment for men and women without children in the US, they show that within industry, gender gaps were large among people with children. This suggests that differences in policies interacting with childcare availability are likely to explain a substantial proportion of gender gaps in labor market outcomes during the pandemic.

Policies to protect jobs. Both Spain and the UK implemented very generous job protection schemes, mainly short-term work, or furloughing (ERTE in Spain). These policies meant that governments provided salary payments for people temporarily on leave but who remained employed with the company that they worked for at the onset of the pandemic.

Figure 6 shows the evolution of the extent of income support provided by the government for each country. The indicator corresponds to an index ranging from 0 to 100, where a higher value means a broader expansion and a more generous income support. First, we observe that the safety net of income support has been more extensive in Spain and the UK relative to the US. Both Spain and the UK implemented very generous short-time work, or furlough schemes, which provided income replacement of between 70 and 80 percent of employees' wages.³ Conversely, rather than supporting people in jobs, the strategy of the US focused more on extending unemployment benefits for those that lost their jobs because of the pandemic.⁴

Figure 6. Income support



Notes: This figure shows the evolution of workplace closure requirements since the onset of the pandemic for Spain, the UK, and the US. The economic support index is a composite measure that integrates all within-country income support policies mandates and weights them according to their generosity and geographical reach. The indicator corresponds to an index ranging from 0 to 100, where a higher value depicts more extensive income support policies. The index has been computed using the formula detailed in the Oxford COVID-19 Government Response Tracker Index methodology (version 3.7), available at https://github.com/OxCGRT/COVID-policy-tracker/blob/master/documentation/index_methodology.md. Source: Hale et al. (2021).

3 In the UK, businesses could reclaim up to 80 percent of the wage costs of furloughed employees up to a cap of £2,500 per month together with associated Employer National Insurance contributions and pension contributions, and could decide to top up salaries if they were above the cap. The furlough scheme in the UK came to an end on September 30, 2021. In Spain, the maximum furlough payment for the first six months of being on furlough is dependent on whether someone has children and the number of children and ranges between about €1,000 and €1,500. The Spanish furlough scheme is still in place until at least 28th February 2022.

4 In March 2020, the Coronavirus Aid, Relief, and Economic Security (CARES) Act introduced several measures to support workers and businesses. First, the Pandemic Unemployment Assistance (PUA) program extended unemployment benefits to those not eligible for regular unemployment compensation, such as freelance or self-employed individuals. Second, the Federal Pandemic Unemployment Compensation (FPUC) program was implemented, which topped up current unemployment insurance benefits by up to \$600 per week. Lastly, the Paycheck Protection Program (PPP) was also introduced, which allowed small and middle-sized businesses to apply for low-interest loans to maintain employment and wages.

Furloughing schemes have played a major role in supporting jobs and preventing financial vulnerability across many OECD countries. Tentative estimates suggest that, on average, the decline in employment would have been between 2 and 7 percentage points higher in the absence of large-scale job retention schemes (OECD, 2021a). Moreover, since women were over-represented in sectors particularly hit by pandemic restrictions, the generous short-time work schemes in the UK and Spain are likely to have prevented larger gender disparities in the employment impact of the pandemic in these countries.

School and childcare closures. Figure 7 shows the evolution of school closure policies for each country. The indicator corresponds to an index ranging from 0 to 100, where a higher value represents more stringent measures. As can be seen, the three countries under analysis had quite different approaches to childcare and school closures.

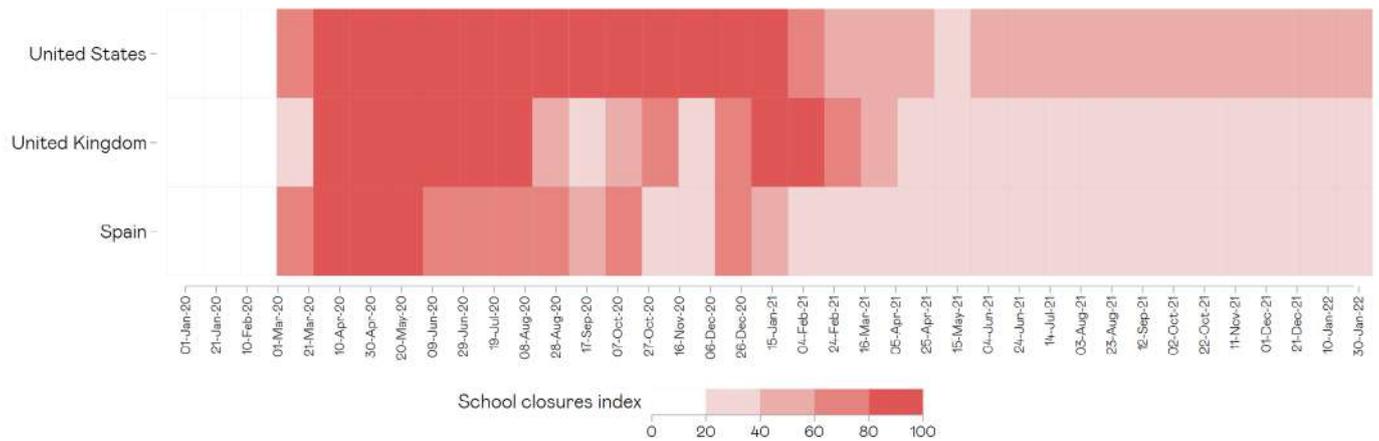
Spain closed all its schools in mid-March 2020, but by September 2020 it had reopened all its schools. Similar timing applied to the UK, where school attendance did not recover in full until September 2020, although secondary schools started to reopen in June 2020. Whereas schools have not closed again since September 2020 in Spain, the UK ordered mass closures starting December 2020 until late February 2021. As a result, the average number of days when schools were fully closed during the pandemic across primary and secondary levels amounted to 83 in the UK versus 45 in Spain (OECD, 2021b). The latter is actually among the lowest figures we can find across countries, meaning that students in Spain have missed significantly fewer days of in-person class than students in most OECD nations.

Data from the US tell a whole different story. Whereas school closure policies were heterogeneous across counties and states and no full system closure was implemented, partial school closures from February 2020 to August 2021 are estimated to amount to more than 400 regular school days (UNICEF, 2021). The school closures index shown in Figure 7 reflects that restrictions had not started to relax overall until one year after the onset of the pandemic.

There is evidence that the lack of flexibility induced by extended school closures has had negative effects on parental labor supply, especially for mothers (Russell and Chunxuan, 2020; Amuedo-Dorantes et al., 2020). In particular, Fabrizio et al. (2021) show that the gender gap in employment among people with young children accounted for 45% of the total employment gender gap during the pandemic in the US, while mothers of young children only represented 25% of women's total employment before the pandemic. This reflects that women with children were disproportionately affected.

Contrarily, school reopenings in the US have been shown to facilitate mothers' return to work during the pandemic (Hansen et al., 2022), suggesting that childcare availability played a major role in amplifying the gender gap in employment during the pandemic. In line with this, we find that after in-person schooling restrictions started to be relaxed in February 2021, inactivity rates for women with children fell (see Figure 4C).

Figure 7. School closures



Notes: This figure shows the evolution of school closure requirements since the onset of the pandemic for Spain, the UK, and the US. The school closures index is a composite measure that integrates all within-country workplace closure mandates and weights them according to their severity and geographical reach. The indicator corresponds to an index ranging from 0 to 100, where a higher value depicts more stringent measures. The index has been computed using the formula detailed in the Oxford COVID-19 Government Response Tracker Index methodology (version 3.7), available at https://github.com/OxCGRT/COVID-policy-tracker/blob/master/documentation/index_methodology.md. Source: Hale et al. (2021).

Implications for policies

In this policy brief, we have shown that the gender gaps in the impact of the pandemic on employment, inactivity, and short-term work differed substantially across countries. Spain and the UK, which implemented generous short-time work schemes, had a lower employment reduction during the pandemic and smaller or no gender gaps in these impacts. In the US, where income support for people in work was less extensive, many more people lost their jobs, and the most affected tended to be women with children.

All in all, cross-country differences in gender gaps during the COVID-19 pandemic largely depend on the interplay between differences in idiosyncratic, country-specific characteristics of the labor market and cross-country heterogeneity in the policy response. In particular, the largest gender gaps are found among people with children, indicating that childcare and school closures played a particularly important role in explaining differences in these gender gaps. The extent of school closures differed a lot across the three countries under study, with Spain being the country with the least extensive school closures, and the US being the one with the most extensive. Both the descriptive evidence in this brief as well as studies exploring the causal impact of school closures (or re-openings) suggest that these are likely to have affected gender gaps in employment losses and short-time working.

Even in the absence of large gender gaps in the effect of the pandemic on employment, several studies have shown the disproportionate impact of the pandemic on the childcare burden carried by women, and that in the absence of adequate and affordable childcare or schooling, women were more likely to exit the labor force (the case of the US) or go on furlough (the case of the UK and Spain) to be able to meet additional childcare needs. Traditional gender roles, already present before the pandemic, seem to have been reinforced during the pandemic and are likely to have longer-term implications for inequality between mothers and fathers in the workplace and the home. While not the focus of this briefing note, gender gaps seem to have widened within households when it comes to the relative contribution of men and women to increased childcare needs and housework (Sevilla and Smith, 2020; Farré et al., 2020; Hupkau and Petrongolo, 2020).

Policymakers concerned about decreasing gender inequalities in the labor market should promote policies that increase childcare availability and incentivize equal take-up of childbirth-related leaves among mothers and fathers. There is evidence that this type of policies can help to break traditional gender roles (Bünning, 2015; Dunatchik and Özcan, 2020; Patnaik, 2019). In households where men had to take on a disproportionate share of childcare responsibilities, for instance because they could work from home while mothers were required to work extra hours in critical jobs like health care, traditional gender roles might have been reversed. Whether this was the case and whether it will have a lasting impact will be the subject of future work.

Evidence from the UK suggests that women with children have increased demand for flexible work arrangements since the onset of the pandemic by much more than men with children, with no gender gap among those without children (García-Guzmán et al., 2022). It is known that flexible work arrangements, such as working from home, are often associated with lower earnings and reduced career progression (Bloom et al., 2015). It is therefore important for firms that want to promote gender equality to ensure that new, flexible work arrangements, like increased working from home, are taken up equally by men and women. Otherwise, they risk reinforcing specialization of women in housework and childcare. Policy makers should be aware of this and work with businesses to ensure innovations in flexible working do not translate into more gender inequality in the future.

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A. Appendix

A.1. Empirical strategy

To estimate the differential impact of the pandemic on men and women, and between men and women with and without small children, we estimate equations of the following form:

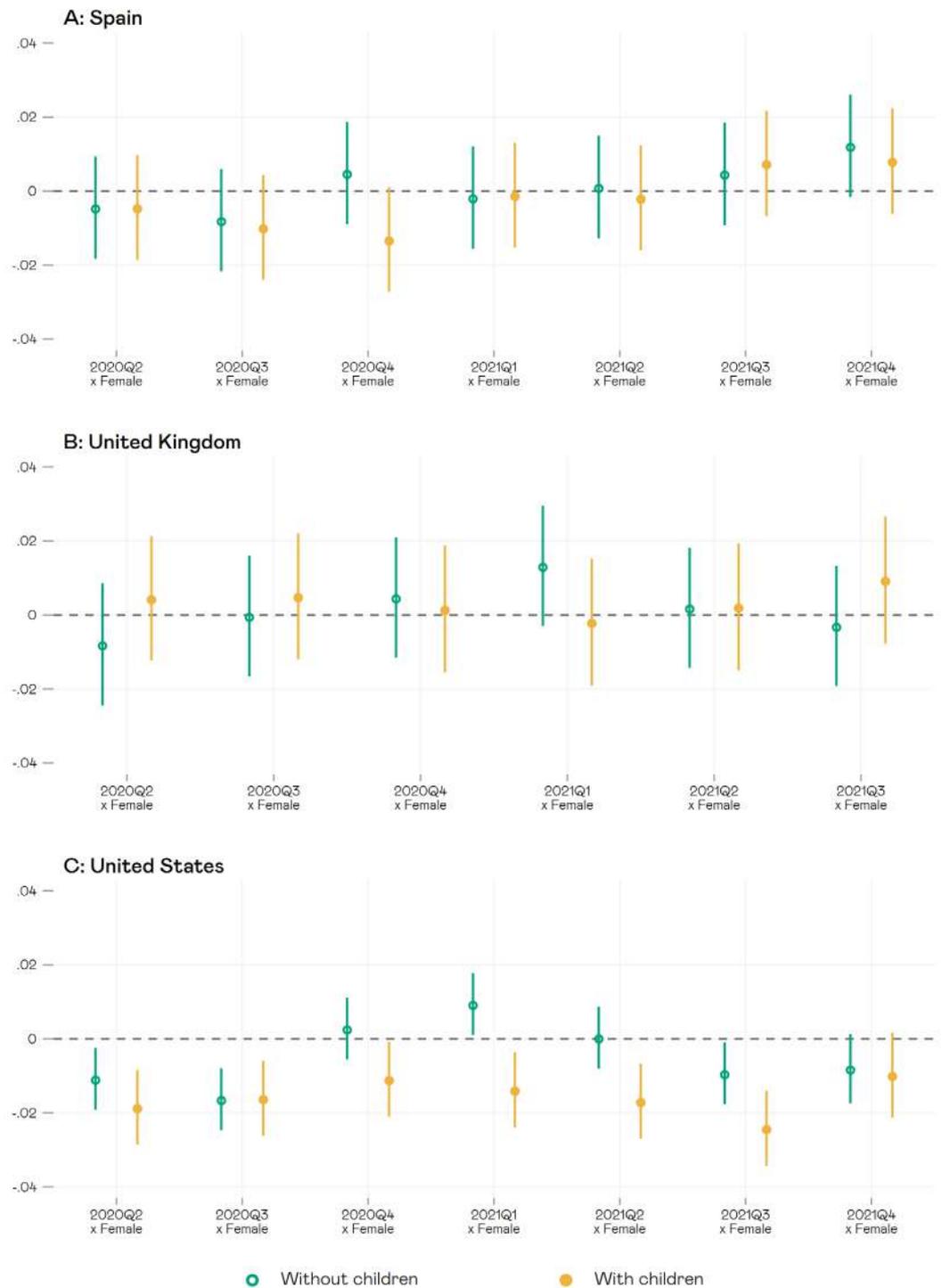
$$y_i = \alpha_0 + \alpha_1 Fem_i + \sum_{k=Q1/2019}^{Q4/2021} \alpha_{2K} Quarter_k + \sum_{k=Q1/2019}^{Q4/2021} \alpha_{3K} Quarter_k \times Fem_i + \epsilon_i \quad (A.1)$$

where the main outcomes of interest (y) are: (1) being employed, (2) being on short-time work, and (3) being inactive, measured at the individual level. Employment and inactivity are defined on the sample of all individuals aged 25-54, while short-time work is defined on the sample of employed individuals aged 25-54 only. Fem is a dummy variable equal to one for females, $\sum_{k=Q1/2019}^{Q4/2021} Quarter_k$ is a set of dummy variables for Q1/2019-Q4/2021 (the omitted period is Q1/2020 for Spain and the UK, and February 2020 for the US); ϵ_i is an individual-level error term.

The coefficients of interest are the interaction terms between the female dummies and the quarter dummies (α_{3K}). The former capture the average change in the outcome between the baseline (omitted) period and subsequent periods for women relative to that experienced by men. We estimate these equations for the whole sample of individuals aged 25-54, and for those with and without kids aged 15 (13 for the US) and below, for Spain, the UK and the US. The coefficients of interest are displayed in Figures A.1-A.3.

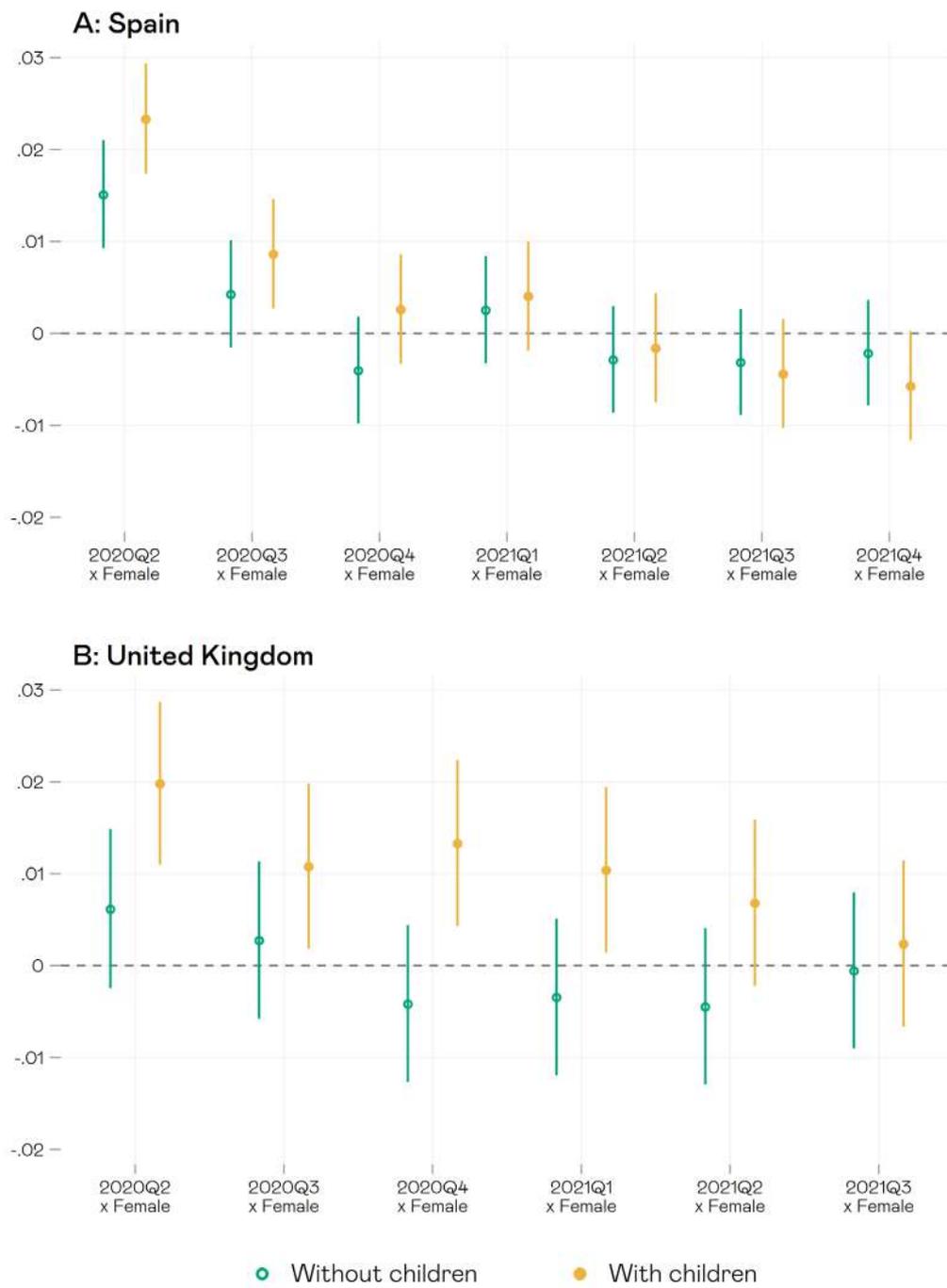
A.2. Additional figures

Figure A.1.
**Gender differences
in the impact
of COVID-19
on employment**



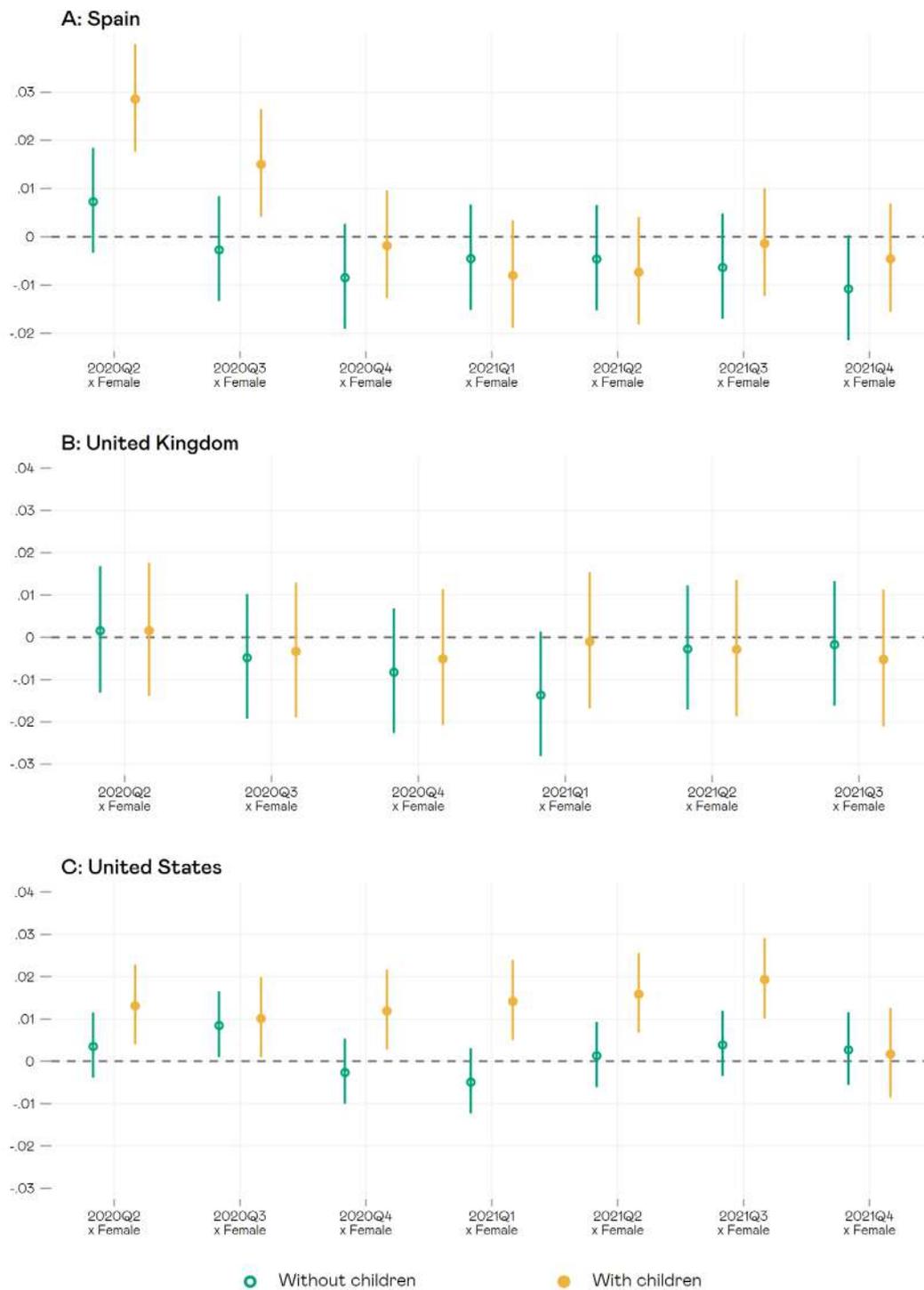
Notes: This figure shows the estimated coefficients and their 95% confidence intervals from Equation A.1 (α_{3k}), and show how much more (below zero) or less (above zero) women's employment had dropped with respect to the baseline period than men's in each quarter. The outcome variable is a dummy variable equal to one if the individual is employed and zero if the individual is unemployed or inactive, separately by whether they have children under the age of 16 (Spain and UK) or 14 (US) living in the household. The baseline period is the first quarter of 2020. Sources: Spain: Q1/2020-Q4/2021 of the EPA (Spanish Labor Force Survey); UK: Q1/2020-Q3/2021 of the UK Labor Force Survey; US: 2/2020-11/2021 of the Current Population Survey (CPS).

Figure A.2.
Gender differences in the impact of COVID-19 on short-time work



Notes: This figure shows the estimated coefficients and their 95% confidence intervals from Equation A.1 (α_{3K}), and show how much more (above zero) or less (below zero) women’s short-term work rate had increased with respect to the baseline period than men’s in each quarter. For Spain, the outcome variable is a dummy variable equal to one if the individual did not work in the reference week due to ERE/ERTE or technical and economic reasons, and zero if the individual is employed and not on ERE/ERTE. For the UK, the outcome is a dummy variable equal to one if the individual worked fewer hours in the reference week due to economic and other causes linked to COVID-19, and zero if the individual is employed and did not work fewer hours. Coefficients are estimated separately by whether they have children under the age of 16 living in the household. The baseline period is the first quarter of 2020. Sources: Spain: Q1/2020-Q4/2021 of the EPA (Spanish Labor Force Survey); UK: Q1/2020-Q3/2021 of the UK Labor Force Survey.

Figure A.3.
Gender differences in the impact of COVID-19 on inactivity



Notes: This figure shows the estimated coefficients and their 95% confidence intervals from Equation A.1 (α_{3k}), and show how much more (above zero) or less (below zero) women's inactivity rate had increased with respect to the baseline period than men's in each quarter. The outcome variable is a dummy variable equal to one if the individual is inactive and zero if the individual is employed or unemployed, separately by whether they have children under the age of 16 (Spain and UK) or 14 (US) living in the household. The baseline period is the first quarter of 2020. Sources: Spain: Q1/2020-Q4/2021 of the EPA (Spanish Labor Force Survey); UK: Q1/2020-Q3/2021 of the UK Labor Force Survey; US: 2/2020-11/2021 of the Current Population Survey (CPS).