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Work and well-being during the COVID-19 pandemic

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Work and well-being during the COVID-19 pandemic – evidence from panel data in four countries

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INTRODUCTION

Few developments or events in recent decades have changed European societies as quickly and profoundly as the COVID-19 pandemic. Many policy analyses on COVID-19 have focused on the kinds of policies implemented to contain the spread of COVID-19 and their effectiveness in reducing the number of new infections.

However, the political, social and psychological consequences of the containment policies are equally important to explore, as their consequences may continue to affect our societies in the medium and longer term. The pandemic and associated containment measures have affected almost every aspect of our societies and any analysis of the social situation during the pandemic should ideally cover several societal areas.

This research note provides empirical evidence on how the COVID-19 pandemic has affected our societies. It focuses on work and well-being, and uses unique datasets to look at the groups most affected. More specifically, it explores the following questions:

1. How did the labour market situation change in each country? Who was affected by job loss and furlough?

2. How has the share of remote work evolved in each country? Has the shift towards remote work been permanent?

3. Were existing dimensions of social inequality (education, occupation, gender, having children) associated to job loss, furlough, and remote work?

4. Did subjective well-being and satisfaction change during the first lockdown in each country? Were these changes short-lived, and was there a recovery between lockdowns?

5. Were changes to the work and economic situation (job loss, furlough, and remote work) related to changes in mental health and subjective well-being?

The comparative approach used here offers the basis to a) discuss which institutional settings or policies provide the best protection against the negative consequences of the crisis, and b) identify changes in social inequalities within societies during the pandemic.

The research note relies on high-quality survey data from four different countries: France, Germany, Italy, and the United Kingdom (UK). Unlike other studies based on COVID-19 surveys, this study relies on data characterised by five key and unique features: (1) four waves of data collection (pre-COVID-19, during the first lockdown in spring 2020, in a phase of recovery in summer 2020, and one year after the beginning of the pandemic in spring/summer 2021), allowing for the identification of short-

term changes, but also possible trends in recovery and more longer-term changes; (2) interdisciplinary, multi-topic surveys that provide an intersectoral perspective into the social situation of European societies, including information not typically collected in national or international official statistics; (3) respondents are sampled from probability samples of the general population in Germany, France and the UK, and from a high quality online panel in Italy; (4) pre-COVID-19 data are available for the same respondents for some indicators; and (5) surveys are administered in the same mode, with identical instruments across all waves.

This broad approach covering four European countries promises to provide a general, empirical and evidence-based overview of how the COVID-19 pandemic has affected the social situation in Europe. Both the intersectoral perspective and the country comparative approach are innovative aspects omitted from many examinations of the COVID-19 crisis (e.g. Arpino and Pasqualini, 2021; Gagné et al., 2022a; Hipp and Bünning, 2021; Möhring et al., 2021; Mata et al., 2021). In addition, compared to surveys for which respondents can self-select (e.g. Eurofound's 'Living, working and COVID-19' survey), stricter sampling procedures make results more reliable. This is particularly important for areas such as remote work or mental health, which are likely related to the propensity to voluntarily participate in surveys. Compared to other high-quality datasets (e.g. EU-SILC), the data used here were already self-administered, thus comparability with pre-COVID-19 data is not affected by a mode switch. Finally, as an interdisciplinary, multi-topic survey, it can link changes in the economic and labour market situation with different indicators of subjective well-being and mental health.

The following sections introduce each of the research questions addressed in the note and summarise recent empirical evidence. The three research questions look at: 1) inequalities in the work-related consequences of the pandemic and in the possibility to work remotely; 2) variation and inequalities in subjective well-being and mental health during the pandemic; 3) the association between remote work and subjective well-being during the pandemic. The note then provides a detailed description of the four country-specific datasets used in the analyses: the COping with COvid-19 (COCO) dataset for France; the German Internet Panel (GIP) and Mannheim Corona Study (MCS) for Germany; the ReSPOnsE COVID-19 survey for Italy; and the Understanding Society COVID-19 study for the UK. That section also presents the different variables used in the research note, the harmonisation process, and a brief outline of the analyses. The following section provides an overview of the different policies against the spread of COVID-19 that were in place in the four countries during the relevant time span that are useful for contextualising the results. The penultimate section presents and discusses the results on social inequalities in labour market outcomes, remote work, subjective well-being and mental health, and the relationship between mental health and remote work during the pandemic. The final section summarises the main findings.

RESEARCH QUESTIONS AND PREVIOUS EVIDENCE

LABOUR MARKET-RELATED INEQUALITIES DURING THE COVID-19 PANDEMIC

Previous studies have shown that the COVID-19 pandemic resulted in a sharp economic downturn with layoffs and furlough (Eurofound, 2021). Remote working increased, as a key policy measure to prevent the spread of the virus, as well as one of the most important ways for people to protect themselves from infection. The first part of this research note examines inequalities in the economic consequences of the downturn and in the possibility to work remotely. It focuses on the question of whether existing inequalities in education, age, gender and having children have been exacerbated by the pandemic.

Lower-educated workers faced two countervailing forces when it comes to the possible consequences of the pandemic. On the one hand, they were more likely to work in essential occupations and were thus at lower risk of layoff or furlough. On the other hand, however, they were also more likely to work in occupations that were more exposed to adverse labour demand shocks and that had lower potential for remote work. Research on the short-term labour market effects indeed found that low-income and low-educated workers were more affected by job loss and furlough and less likely to work remotely (e.g. Adams-Prassl et al., 2020; Eurofound, 2021; Stantcheva, 2022). Turning to gender differences, Alon et al. (2020) argued that women should be more negatively affected by the economic downturn and the pandemic because – in contrast to previous recessions that mainly affected male-dominated sectors of the economy, such as construction or manufacturing – the pandemic recession affects sectors like tourism or hospitality, in which mainly women work. In addition, most women are the main caregivers and tend to be more affected by the closure of schools and childcare. Existing evidence largely supported this expectation: the pandemic recession had an unusually large impact on working women across a large set of countries and this effect was stronger for women with children (Andrew et al., 2020; Hipp and Bünning, 2020). In other words, women's childcare responsibilities increased during the pandemic, making them more likely to transition to remote work, reduce their working hours, and experience greater risk of job loss (Stantcheva, 2022). Finally, employment vulnerability is somewhat higher among younger workers, who are more likely to be employed in 'non-essential' sectors and have atypical contracts that do not provide full access to social security measures (Quaranta et al., 2020). This was confirmed by a recent Eurofound study (2021) showing that young people experienced the sharpest decline in employment and a slower recovery than other age groups (European Commission, 2022), while prime-aged workers (25-54 years) and older male workers were most likely to see their working hours cut. Workers in precarious employment conditions were particularly exposed to job losses.

WELL-BEING DURING THE COVID-19 PANDEMIC

This research note analyses variation in subjective well-being during the COVID-19 pandemic. There are several reasons to believe that the pandemic might have led to lower subjective well-being. Firstly, people who were directly affected by COVID-19 (either becoming ill themselves or experiencing the illness or death of a loved one) would likely experience lower levels of subjective well-being. Previous research has shown that post-traumatic stress emerged in those who lost a loved one, a finding confirmed by pandemic studies (Carson et al., 2021; McGinty et al., 2020; Eisma and Tamminga, 2020; Mazza et al., 2020). Secondly, as an unknown threat, the pandemic might have indirectly increased people's stress levels. As such, even people who were not touched by the illness but who lived in areas where the pandemic was especially severe might have experienced decreases in well-being (Forte et al., 2020; Maffly-Kipp et al., 2021). Thirdly, the restrictive measures imposed to limit the spread of the virus might have played an additional role in lowering levels of subjective well-being. For example, restrictions on movement and social contact, and reduced opportunities for physical activity might have affected levels of depression or triggered feelings of loneliness (Saltzman et al., 2020; Arpino et al. 2021; Arpino and Pasqualini, 2021). Finally, changes in economic conditions (e.g. unemployment or unpaid leave) caused by the pandemic might have indirectly affected subjective well-being. Previous studies found that unemployment is a stress factor that can worsen subjective well-being (Cohen et al., 2007; Sarti and Zella, 2016), while current studies suggest that the unemployed and people with lower levels of income experienced lower levels of subjective well-being during the pandemic (Luchini et al. 2021; Zhang, 2021). The small positive aspects of the lockdown (e.g. more time with family/at home or more work autonomy while working remotely (Reuschke, 2019)) are not expected to outweigh the likely negative effects on subjective well-being. Recent reviews of the literature suggest moderate increases in depression and anxiety (Beutel et al., 2021). The negative consequences of the pandemic appear to have a greater effect on the mental health of women and younger people (Beutel et al., 2021; Bu et al., 2020; Naumann et al., 2021), although young people nevertheless remained more optimistic during the pandemic than the rest of the population (European Commission, 2022).

HOW REMOTE WORK AFFECTS SUBJECTIVE WELL-BEING

Working remotely was a key strategy in many stay-at-home lockdown policies (Reuschke and Felstead, 2020) and this study seeks to examine how the sudden increase in remote work affected subjective well-being. Working from home increases work autonomy and decreases managerial control (Walter et al., 2020), reduces commuting time and allows many workers to better reconcile work and family life. This suggests that remote work is associated with higher subjective well-being. At the same time, working conditions at home might not be ideal, simultaneously working and being responsible for children might induce stress, while reduced contact with colleagues might lead to lower subjective well-being. Some studies have shown that remote working is linked to greater job satisfaction (Binder, 2016; Reuschke, 2019, Wheatley, 2017). However, Wheatley (2017) and Reuschke (2019) found a positive association only for employees and not for the self-employed, as well as stronger effects among

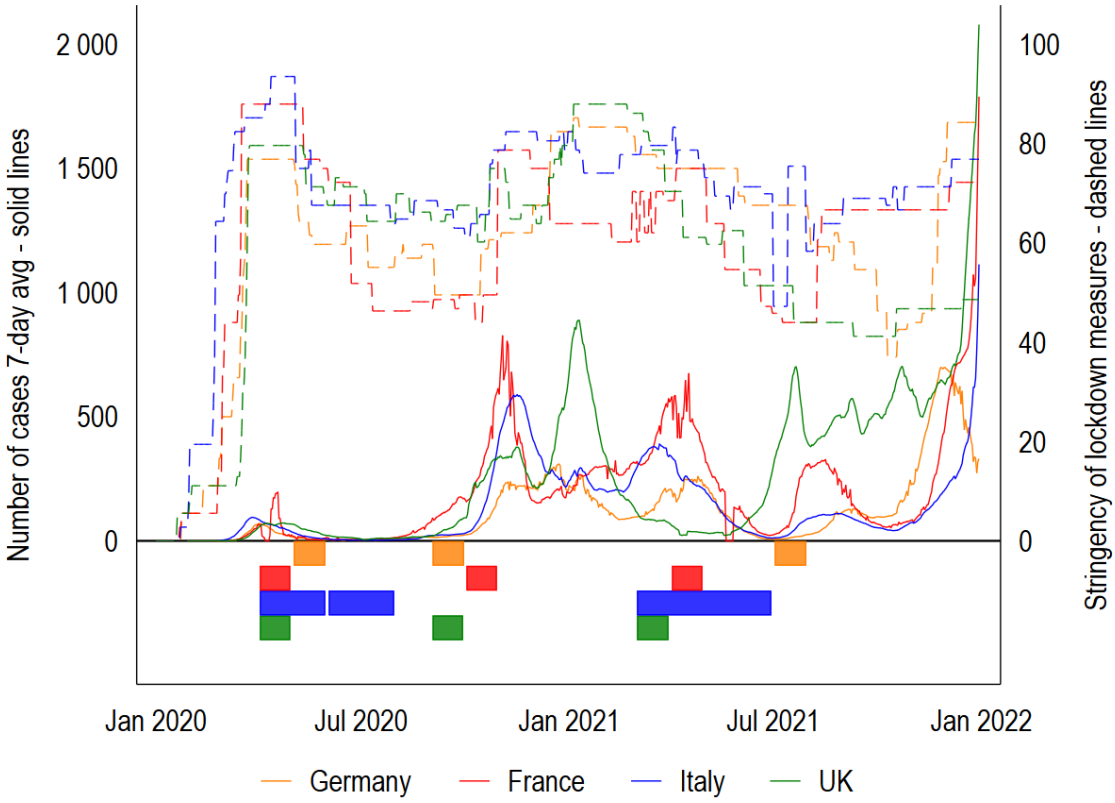
men (compared to women) (Binder, 2016). In contrast, Song and Gao (2019) found that remote work is associated with less happiness and more stress: 'parents, especially fathers, report a lower level of subjective well-being when working at home […]. Non-parents' subjective well-being does not vary much by where they work on weekdays (p. 2649). One limitation identified in these studies is the presence of institutional and workplace barriers to remote working, meaning that remote work is not possible everywhere nor for everyone (Beham et al., 2018).

The lockdowns associated with COVID-19 were a very specific circumstance that might not be comparable to working remotely under normal conditions. For example, with schools and childcare facilities closed, combining working from home with childcare and homeschooling constituted an additional burden for working parents. To date, studies on parents' subjective well-being during lockdown have found mixed results. The vast majority (96%) of parents reported an improvement or stability in their relationship with their children during lockdown, an effect that was even stronger among those who work from home (Benzeval et al., 2020). In Germany, by contrast, satisfaction with family life decreased during the lockdown, especially among mothers with young children, who bore the main burden of care tasks (Huebener et al., 2020). In the Netherlands, there was a reduction of satisfaction with work-life-balance among couples with children (Yerkes et al., 2020). In France, parents' increased stress might hinder family satisfaction, while those without children could be affected by their reduced social life, each of which might have negative effects on their subjective well-being, especially among those who work from home (Recchi et al., 2020).

DATA

The data for this research note come from four independent panel surveys in France, Germany, Italy and the UK. The periods of data collection are not entirely simultaneous and there are some differences in how the concepts of interests are measured in the surveys. To allow a comparative interpretation of results, this study defined four periods of time that share similarities in terms of COVID-19 case numbers and the stringency of lockdown measures (**Figure 1**). The first period is April to June 2020, i.e. the first COVID-19 wave, with strict lockdown measures and the first peak of case numbers in each country. Data collected between July 2020 and October 2020 are used to capture a possible recovery. During that period, case numbers fell and all countries reduced the stringency of their lockdown measures, before both case numbers and lockdown measures rose again in autumn and winter 2021. The fourth and final period of observation is spring/summer 2021. The pandemic situation is less clear for this period, as France and Italy experienced a third wave in early spring 2021, while the latest available data for Germany and the UK show time periods between waves of high case numbers. Nevertheless, this last period of observation, falling more than one year into the pandemic, allows an exploration of whether the immediate changes to work, mental health and subjective well-being might be permanent.

Figure 1 COVID-19 pandemic and data collection periods in France, Germany, Italy, UK



COPING WITH COVID-19 DATASET (FRANCE)

Results from France are drawn from the COping with COvid-19 (COCO) dataset. The COCO survey relies on an existing dataset (the Longitudinal Internet Studies for Social Sciences - ELIPPS), which consists of a probability-based panel study launched in 2012. The COCO added the collection of eight additional waves, from the beginning of the pandemic in April 2020 until April 2021. The sample was randomly selected from the 2011 census data by using two stratification variables (region of residence, type of municipality). In 2019, the panel included 1 404 respondents from previous waves and the cumulative response rate was above 70 %. Weights were computed to account for design effects from the initial stage, bias due to the acceptance rate during the first enrolment period, and post-stratification weights on the basis of gender, age, education and region.

To facilitate cross-country analysis, four waves were selected, corresponding to the following points in time: pre-pandemic data from the ELIPPS annual survey in 2019; April 2020, to cover the early stage of the pandemic; October 2020, to look at mid-term effects; and April 2021, to look at long-term consequences. The sample size was 4 257 observations, varying from 892 (spring 2021) to 1 157 (pre-pandemic).

MANNHEIM CORONA STUDY AND THE GERMAN INTERNET PANEL (GERMANY)

German results rely on data from the German Internet Panel (GIP) and the Mannheim Corona Study (MCS). The GIP is an ongoing online panel survey that relies on random probability samples of the general 16-75-year-old population in Germany. The study started in 2012 and was supplemented with additional participants in 2014 and 2018. The panel participants were recruited offline using strict statistical procedures. Cumulative AAPOR (American Association for Public Opinion Research) response rates vary between 19 % and 24 %. Respondents answer short surveys on a variety of political and economic topics every second month. The MCS interviewed approximately 3 600 GIP participants every week from 20 March to 10 July 2020.

To allow a country comparative analysis, the sample was restricted to the following points in time and panel waves: pre-pandemic data from January 2020; June 2020 covers the period of the first COVID-19 wave; September 2020 includes the temporary recovery in summer 2020; and data from September 2021 allow a view beyond short-term changes. The sample size of the German data was 18 096, with the number of respondents per wave varying from 4 090 (spring/summer 2021) to 5 044 (summer 2020). Weights were used to account for sampling and attrition.

RESPONSE COVID-19 DATASET (ITALY)

The results for Italy are based on data from the ResPOnsE COVID-19 study (Italian Public Opinion Response to the COVID-19 Emergency). Online interviews (computer-assisted web interviewing (CAWI)) were carried out with over 30 000 respondents between April and July 2020 (wave 1), in December 2020 (wave 2), between March and June 2021 (wave 3), and between November and December 2021 (wave 4). The first and third waves follow a rolling cross-section (RCS) design, in line with the dynamic nature of the pandemic phenomenon (see Vezzoni et al., 2021; Biolcati et al., 2021). Some 60 % of respondents were interviewed twice (panel component). This study relies on the first three waves in order to allow comparison with the other countries analysed.

The reference population comprises people residing in Italy aged 18 or over. Given the lack of an existing online panel on the Italian population and the urgency to quickly develop a tool to monitor public opinion during the pandemic, it was not possible to construct a probabilistic sample. Instead, a selection of respondents was extracted from an online community of a commercial research institute (SWG SpA). The results for the Italian case thus cannot be directly generalised to the entire population. The sample was stratified by macro-area of residence and quotas were applied to gender and age groups. Post-stratification weights were also used throughout the analysis. The overall size of the Italian sample in the present study was 23 967 and the number of respondents per wave varied between 6 570 (summer 2020) and 9 187 (spring 2020).

UNDERSTANDING SOCIETY COVID-19 STUDY (UK)

The analysis for the UK is based on high-quality survey data from Understanding Society (UK Household Longitudinal Survey). Two different data components were used: the mainstage Understanding

Society Survey and the Understanding Society COVID-19 Survey. The following waves of the Understanding Society COVID -19 Survey are used to analyse three points in time during the pandemic: spring/summer 2020 – wave 2 (May 2020, n=14 811); summer/autumn 2020 – wave 5 (September 2020, n=12 876); and spring/summer 2021 – wave 8 (March 2021, n=12 680). The pre- COVID-19 point in time is analysed using a set of retrospective questions about the baseline situation in January/February 2020 asked in the first wave of the Understanding Society COVID-19 Survey in which a given respondent participated. Where this retrospective baseline information was not available, the most recent data point from the mainstage Survey was used.

The mainstage Understanding Society survey is a longitudinal survey of the members of approximately 40 000 (wave 1) households in the UK (50 994 full adult individual interviews). The study began in 2009-2010. The sample is representative of the UK population. The households recruited in the first wave are then visited each year to collect information on the changes to their household and individual circumstances. Interviews are carried out face-to-face in respondents' homes or through a self-completion online survey (Institute for Social and Economic Research, 2022).

The overall sample has multiple sample components (Institute for Social and Economic Research, 2022):

- The General Population Sample (GPS): 1) a clustered and stratified probability sample of approx. 24 000 households living in Great Britain in 2009-2010; 2) a simple random sample of approximately 2 000 households living in Northern Ireland in 2009 (selected with twice the selection probability as the Great Britain part).
- The Ethnic Minority Boost Sample (EMBS): approximately 4 000 households selected from areas of high ethnic minority concentration in 2009-2010, where at least one member was from an ethnic minority group.
- The Immigrant and Ethnic Minority Boost Sample (IEMBS), added in wave 6: approximately 2 900 households selected from areas of high ethnic minority concentration in 2015, where at least one member was born outside the UK, or is from an ethnic minority group.
- The British Household Panel Survey sample (BHPS), added in wave 2: approximately 8 000 households from the BHPS sample.

The weights in the Understanding Society survey adjust for unequal selection probabilities, differential nonresponse, and potential sampling error. Weights are constructed by combining (1) design weights that adjust for unequal selection or sampling fraction, and (2) non-response weights that adjust for differential non-response and attrition at various stages (household level, within household at individual level, whether adult respondent completed self-completion questionnaire or not) (Institute for Social and Economic Research, 2022).

The Understanding Society COVID-19 study was started in order to explore the experiences and reactions of the UK population to the COVID-19 pandemic. It is an integral part of Understanding Society

and includes all members of the main Understanding Society samples: GPS, EMBS, IEMBS and the former BHPS. The eligible sample included everyone in households that participated in waves 8 or 9 (Institute for Social and Economic Research, 2021). From April 2020 to September 2021, there were nine waves of the COVID-19 Survey, with participants asked to complete a short web-survey (with a telephone option in some months).

Similar to the mainstage Understanding Society survey, cross-sectional weights were constructed to adjust for unequal selection probabilities and differential non-response. The weights were calculated using the wave 10 cross-sectional analysis weight for those who completed an adult main interview and an additional adjustment for differential non-response to the relevant wave of the COVID-19 study, conditional on wave 10 response (Institute for Social and Economic Research, 2022).

VARIABLES

The first of the following sections looks at changes in employment conditions. It examines the extent of unemployment and short-time work, distinguishing between those in paid work (i.e. employed or self-employed, either full-time or part-time), those in furlough, the unemployed, the retired, and those with other employment situations (e.g. students or homemakers). For those in paid work, it explores whether the place of work has changed over time and whether people worked remotely or on-site, distinguishing between those who only worked on-site and those who worked remotely at least some of the time.

The later section focuses on subjective well-being and on two indicators of mental health: depressive feelings and loneliness (**Table 1**). Compared to the indicators of employment situation, the indicators on subjective well-being are more difficult to harmonise, due to differences in question wording and response scales. The variables on subjective well-being capture different sub-dimensions, such as life satisfaction or happiness, and are measured on Likert or self-anchored scales. To facilitate comparisons across countries, values are centred around the mean in each country at the first period of observation. The variables capturing depressive feelings and loneliness ask how often respondents have experienced that feeling. For Germany and Italy, validated short-scales from the Patient Health Questionnaire (PHQ) were used to screen for symptoms of depression or loneliness, relying on the suggested cut-off points. For the UK, depressive feelings were measured with an item from the General Health Questionnaire (GHQ-12), and loneliness with an item from the R-UCLA Loneliness Scale. Similar items were used in France, with the variables transformed into indicators that should capture high levels of loneliness and identify respondents for whom a major depressive disorder was likely. While these harmonisation efforts enable changes over time to be tracked within a country, care should be taken when directly comparing levels of depressive feelings and loneliness between countries. As a result, this study primarily focuses on comparing trends over time within countries.

Table 1 Measurement and harmonisation of subjective well-being, depressive feelings and loneliness

	Question wording	Response scale	Harmonisation
Subjective well-being			
France	In the past two weeks, have there been times when you felt happy?	1. Never 2. Rarely 3. Sometimes 4. Often 5. Permanently	Standardisation of values and centring around the mean in each country
Germany	How satisfied are you with the following areas of your life? With my work With my family	0 Completely dissatisfied - 10 Completely satisfied	
Italy	On a 0-10 scale, how happy are you?	0 Not happy at all - 10 Extremely happy	
UK	How satisfied are you currently with your life overall?	1 Completely dissatisfied - 7 Completely satisfied	
Depressive feelings			
France	In the past two weeks, have there been times when you felt sad and dejected?	1 Never 2 Rarely 3 Sometimes 4 Often 5 Permanently	1, 2, 3 = 0 4, 5 = 1
Germany	In the last seven days, how often have you… … felt down, depressed or hopeless? … had little interest or pleasure in doing things?	1 Never 2 1-2 days 3 3-4 days 4 5-7 days	Average of both items is recoded: 1-2.5 = 0 3-4 = 1
Italy	In the last seven days, how often have you felt depressed?	1 Rarely 2 Sometimes (once or twice) 3 Frequently (3 to 4 times) 4 Most of the time	1, 2 = 0 3, 4 = 1
UK	Have you recently been feeling unhappy or depressed?	1 Not at all 2 No more than usual 3 Rather more than usual 4 Much more than usual	1, 2 = 0 3, 4 = 1
Loneliness			

France	In general, would you say that you feel...?	1 Very supported 2 Rather supported 3 Rather alone 4 Very alone	1, 2 = 0 3, 4 = 1
Germany	In the last seven days, how often have you felt lonely?	1 Never 2 1-2 days 3 3-4 days 4 5-7 days	1, 2 = 0 3, 4 = 1
Italy	In the last seven days, how often have you felt lonely?	1 Rarely 2 Sometimes (once or twice) 3 Frequently (3 to 4 times) 4 Most of the time	1, 2 = 0 3, 4 = 1
UK	In the last four weeks, how often did you feel lonely?	1 Hardly ever or never 2 Some of the time 3 Often	1, 2 = 0 3 = 1

In order to examine socioeconomic differences, several binary comparisons were drawn: men and women; highly-educated (with tertiary education) and lower-educated (without a tertiary education); childless respondents and those living with children. As the age of the child is an important aspect for the degree of attention and care needed, a further distinction was drawn between parents with at least one child under 10 years old and parents with older children. In addition, three age groups were compared to explore whether young people (below 35 years) were affected differently by the pandemic than middle-aged people (35-54 years old) or older people (55 years and older). That definition of 'young people' is extended beyond the usual cut-off point of 30 or even 25 years so as to ensure reasonable case numbers in this group.

GERMANY, FRANCE, ITALY, UK AND THEIR COVID-19 POLICIES

This research note focuses on the four European countries with the largest economies (as measured in Gross Domestic Product (GDP)). From a European perspective, these four countries are acknowledged to differ in their welfare provision (Esping-Andersen, 1990, 1999). However, from a global perspective, they share more similarities than differences. The main institutional differences among the four countries are briefly outlined below (Table 2) in order to contextualise some differences in how the pandemic affected the employment situation, as well as the mental health and subjective well-being of the population. More specifically, data are provided on employment protection legislation for temporary and regular workers. Given the impact of prolonged lockdown on labour market outcomes, differences in employment protection legislation across countries could account for the way

in which the pandemic affected workers in different countries. Similarly, the availability of teleworkable jobs (i.e. jobs that could be performed from home even prior to the pandemic) in each country is also an important factor to consider when focusing on cross-national differences in labour market outcomes during the pandemic. Finally, data on school closures are provided, as these were a key measure to limit the spread of the virus, especially in the early stages of the pandemic, and potentially played a different role for the employment situation of parents vs. childless people.

The strictness of lockdown measures per se affected the employment and well-being of the population. **Figure 1** shows the overall stringency of these measures for each country over time. Italy and France had the strictest lockdowns during the first COVID-19 wave in spring 2020. While Italy left many of these lockdown measures in place over the following two years, France, Germany and the UK had periods where lockdown measures were eased (e.g. summer 2020). The UK was the only one of the four that started to re-open the country in spring 2022, withdrawing many of its lockdown measures.

Table 2 Institutional differences between countries

	FR	DE	IT	UK
Employment Protection Index - Temporary Worker	3.0	1.38	3.13	0.38
Employment protection regular worker	2.56	2.60	2.56	1.35
Teleworkable jobs	0.38	0.37	0.35	0.44
School Closure Index – first lockdown (March-August)	0.32	0.4	0.56	0.54
School Closure Index - total	0.11	0.31	0.3	0.25

Notes: Employment Protection Index is from the Organisation for Economic Co-operation and Development (OECD) Employment Protection Legislation Database (2020). It captures the strictness of regulations on the dismissal of workers on regular contracts and the strictness of regulations of temporary contracts;
Teleworkable fraction taken from Dingel and Neiman (2020).
School Closure Index calculated from United Nations Educational, Scientific and Cultural Organization (UNESCO) COVID-19 education response, as the fraction of days where schools were not fully open between 1 March and 30 June, out of all school days (excluding academic breaks), where partially closed days are weighted by ½ (https://en.unesco.org/covid19/educationresponse).

Employment protection is recognised as weakest in the UK, thus higher shares of unemployment and job loss were expected here. Employment protection for regular workers is comparable in France, Germany and Italy, but temporary workers are less protected in Germany. All four countries quickly developed job retention policies in spring 2020. Some European countries were able to (partially) scale-up their established schemes (e.g. Germany, France and Italy), while the UK introduced new schemes. The EU's Support to Mitigate Unemployment Risks in an Emergency (SURE) fund supported Italy (among other Member States, but not Germany or France) to finance short-time work schemes, preserve jobs and support incomes, especially among the self-employed.

The largest national schemes in Europe were provided by France (covering 11.3 million people), Germany (10.1 million), Italy (8.3 million) and the UK (6.3 million). Germany already had a short-time work scheme (*Kurzarbeit*). Short-time work benefits provided 60 % of gross earnings and the benefits were increased during the pandemic by 10 % from the fourth month, and by another 10 % from the seventh month onwards. The UK adopted a new Coronavirus Job Retention Scheme (CJRS), an earnings-related benefit of 80 % for up to four months. Italy had an established short-time work scheme (CIG), with benefits for workers in industry at 80 % of gross earnings. The CIG was extended to all sectors not yet covered, although the length varied between six and twelve months. France used 'partial' unemployment benefits (80 % of gross wages for up to one year) to prevent mass unemployment.

One key lockdown measure to reduce social contacts was the possibility to work remotely. This was strongly encouraged – sometimes mandatory – with regulations usually applying to those jobs deemed teleworkable. The UK had the highest share of teleworkable jobs, while the share of teleworkable jobs was almost 10 percentage points (p.p.) lower in France, Germany and Italy (Dingel and Neimann, 2020). The share of remote work during the pandemic, as well as the increase in remote work, was thus expected to be strongest in the UK.

Finally, the degree of school closures should be an important measure for how affected parents were, as they typically had to reconcile remote work with childcare and homeschooling. The School Closure Index during the first lockdown was highest in Italy and the UK, and lowest in France. As a result, it is expected that the well-being of parents, particularly those with younger children, was most strongly affected in Italy and the UK.

LABOUR MARKET CHANGES IN EMPLOYMENT CONDITIONS AND PLACE OF WORK

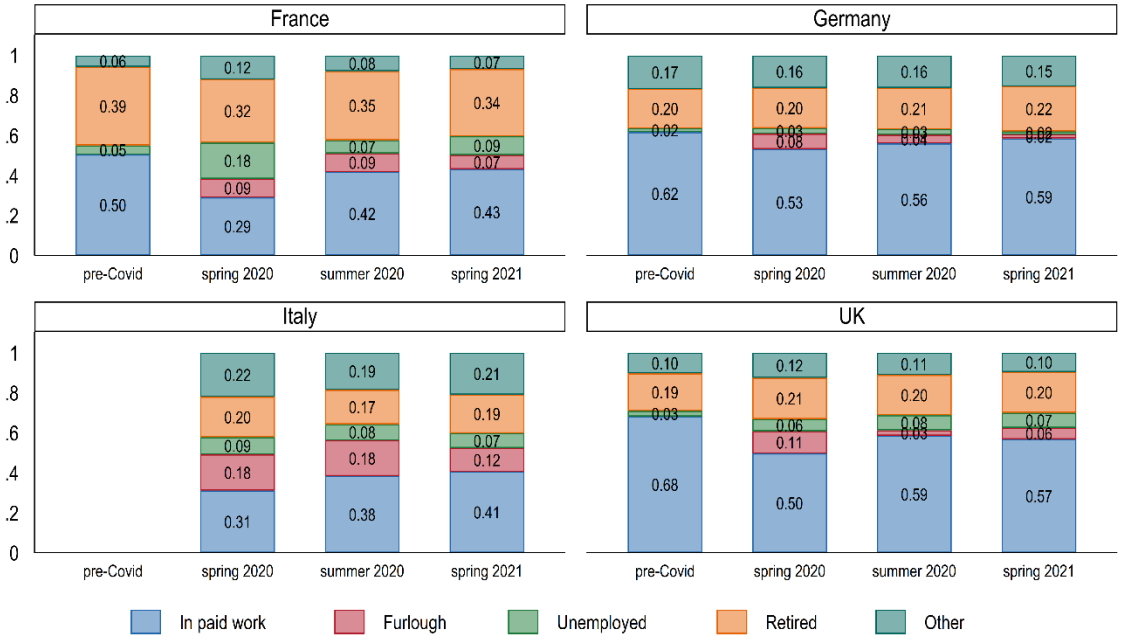
The first question is whether changes occurred in labour market participation during the various stages of the pandemic in the four countries considered here. **Figure 2** shows the proportion of people who were employed, in furlough, unemployed, retired or in another condition from before the onset of the pandemic to spring 2021 (with the exception of Italy, for which pre-pandemic data are not available).

It reveals a clear reduction in the proportion of those in paid work between the pre-pandemic period and spring 2020, when the first lockdown occurred. That decline was especially acute in France (from 0.50 to 0.29) and the UK (0.68 to 0.50), and somewhat less marked in Germany (0.62 to 0.53). In all three countries, this led to the emergence of a category of workers in furlough, and to only minor increases in the proportion of unemployed people.

Crucially, as the pandemic unfolded, the proportion of respondents in paid work began to grow again in all four countries. As of spring 2021, those proportions had not yet returned to pre-pandemic levels, but important signs of recovery were evident. In addition, the proportion of respondents who were not active in the labour market (i.e. the retired and the 'other' group) remained substantially stable throughout the pandemic.

These trends and numbers are comparable to official labour market statistics from Eurostat for France, Germany and Italy, and from the Office for National Statistics for the UK. The employment rate (as share of the total population aged 16 years and older) before the pandemic was 0.58 for France, 0.66 for Germany, 0.52 for Italy and 0.62 for the UK. Hence, respondents in paid work are slightly underrepresented in the surveys used here. Official labour market statistics also show that after an initial drop in employment rates in Q2 2020 (France: 0.58 to 0.56, Germany: 0.66 to 0.65, Italy 0.52 to 0.49, UK: 0.62 to 0.60), employment rates recovered and reached pre-pandemic levels in France (0.57 in Q2 2022) and Germany (0.67 in Q2 2022), while remaining below pre-pandemic levels in Italy (0.50) and the UK (0.60). This was similarly captured by the surveys used here.

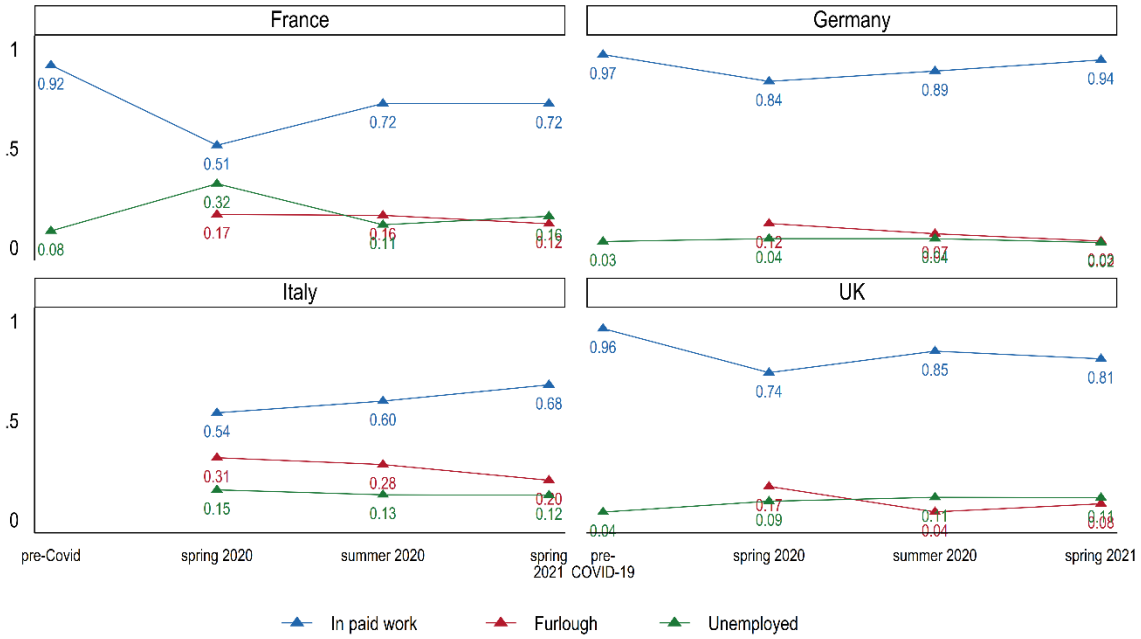
Figure 2 Distribution of labour market activity, by country and point in time (proportions)



The same picture is obtained even when focusing only on active labour market participation (i.e. respondents in paid work, furlough and unemployed) (**Figure 3**). The proportion of respondents who were in paid work in the pre-pandemic period fell in spring 2020 and then gradually increased, although not to pre-pandemic levels. Germany appears to have suffered the fewest consequences in terms of paid work, while France saw a considerable drop in the proportion of employed people (-20 p.p. across the entire observation period), followed by the UK (-15 p.p.). In all four countries, furlough was most diffuse in spring 2020, then gradually decreased. In contrast, the proportion of unemployed

people stayed relatively stable during the pandemic in all four countries, with the exception of France during the first lockdown (spring 2020), when there was a sudden surge in unemployment (from 0.08 to 0.32). This could be explained by the fact that in France, at the beginning of the pandemic, unemployment benefits (i.e. the *chômage partiel* that was introduced) were used to buffer the economic shock, and only later during the pandemic was this then recast as furlough.

Figure 3 Distribution of employment conditions, by country and point in time (proportions)



GENDER-RELATED DIFFERENCES IN EMPLOYMENT CONDITIONS

Figure 4 shows the distribution of employment, furlough and unemployment among women and men in the four countries and across the different points in time.

The data for **France** indicate that the drop in employment was similar for women and men between the pre-COVID-19 period and spring 2020. However, by the last point in time (spring 2021), men's employment had gone up again, while women's had not rebounded as much and they were more likely to be unemployed. By contrast, the proportion of workers in furlough was roughly the same among French women and men at all points of the pandemic period considered.

Of the four countries, **Germany's** employment was highest throughout the pandemic period, with only marginal differences between genders. In fact, the lowest proportion of people in paid work was during the first lockdown period (spring 2020), with 0.83 men and 0.84 women in employment and only 0.04 men and 0.05 women unemployed. Furlough was at its highest at this stage, and gradually declined to a similar extent for both women and men.

For **Italy,** there was no observation point for the pre-COVID-19 period. The data show that employment was lowest during spring 2020 for both men (0.57) and women (0.50), but improved in the subsequent months. Furlough was substantial for both genders, especially during the first wave of the pandemic when the lockdown was extremely severe, and gradually decreased across time periods. Finally, the figures for unemployment reflect Italian women's somewhat worse situation in the labour force, with women more likely than men to be unemployed at all points in time, but especially during spring 2020.

Finally, in the **UK**, women's and men's employment dropped from the pre-COVID-19 period to spring 2020, but as the months passed, the proportion of employed women and men increased again, albeit slightly more for the latter. Furlough and unemployment were quite homogeneously distributed among women and men, with furlough most common in spring 2020 (0.16 among men and 0.17 among women), then gradually declining over the next year (0.08 for both genders in spring 2021).

Figure 4 Distribution of employment conditions, by gender, country and point in time (proportions)

AGE-RELATED DIFFERENCES IN EMPLOYMENT CONDITIONS

The observed increase in unemployment in France and the UK did not affect the whole population equally (**Figure 5**). More specifically, in **France** younger people experienced an increase in unemployment of about 27 p.p. between 2019 and spring 2020, while among individuals aged 55+ that increase was about 10 p.p. lower (17 p.p.).

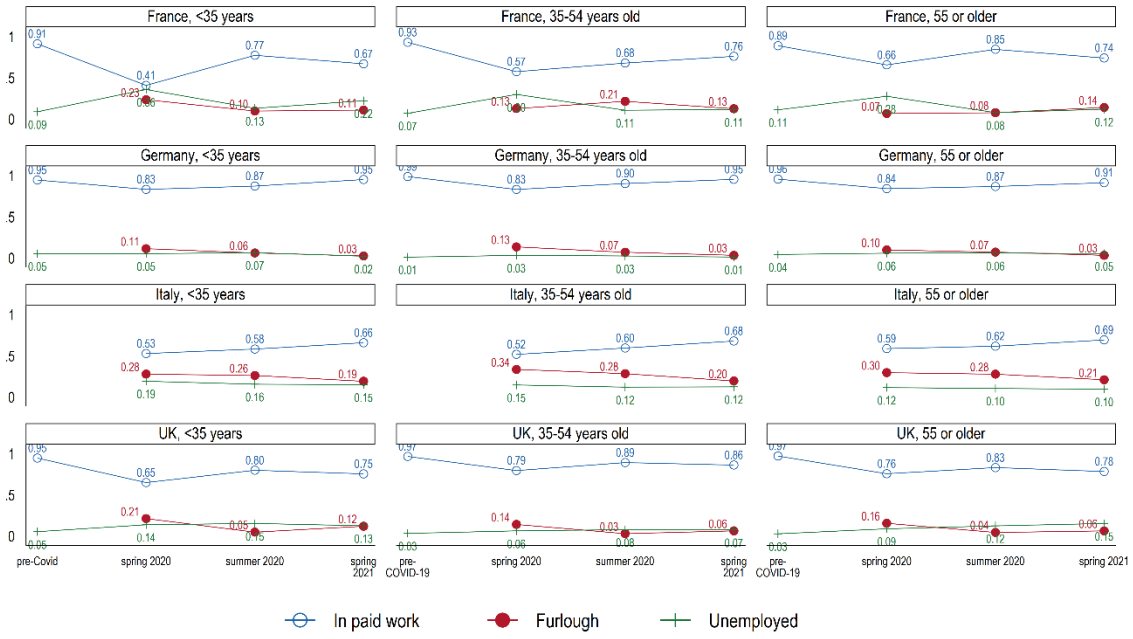
Although the difference was smaller, the unemployment rate in the **UK** was also significantly higher among younger workers (8 p.p.). This can be explained by the fact that younger workers were mostly

employed in 'non-essential' sectors that were closed during the pandemic, and were also characterised by atypical contracts.

Germany experienced general stability in respondents' working status over the pandemic period, with negligible differences across age groups.

Italy experienced a significantly higher prevalence of unemployment in spring 2020 among younger people (+7 p.p. compared to older people).

Figure 5 Distribution of employment conditions, by age, country and point in time (proportions)



EDUCATION-RELATED DIFFERENCES IN EMPLOYMENT CONDITIONS

In France, Italy and the UK, the pandemic had a somewhat higher negative impact on employment among the lower-educated than the higher-educated (Figure 6). In Germany, however, there was no such association. The findings for France, Italy and the UK may reflect the fact that people without tertiary education are overrepresented in customer services and low-skilled services, both of which were hit particularly hard by the outbreak of COVID-19.

In **France**, people without tertiary education were particularly badly affected in spring 2020, with only 45 % employed, compared to 75 % employed among those with tertiary education. In the later stage of the pandemic (summer 2020 and spring 2021), the difference between low-educated and highly-educated respondents almost disappeared and the share of people in paid employment stabilised at around 75 % in both groups. In spring 2020, those who fell out of the job market were similarly distributed between furlough and unemployment, with the majority (about two-thirds) in both groups becoming unemployed. In summer 2020 and spring 2021, the situation became less favourable for

low-educated people, for whom unemployment accounted for a significantly larger share of those who dropped out of the job market, compared to the share among the highly educated.

The overall pattern was broadly similar in **Italy**, where low-educated respondents were hit far harder in spring 2020 than the highly educated. Indeed, the share of low-educated people who dropped out of the job market was higher by over 20 p.p. This difference gradually decreased over time, but to a lower degree than in France, remaining notable as late as spring 2021 (14 p.p.). However, among those who were not in paid employment, the furloughed dominated the unemployed in both educational groups over the course of the pandemic.

The **UK** followed a somewhat similar path, but the difference in the share of people in paid employment between low-educated and highly educated was smaller in spring 2020, decreasing – although remaining notable – in summer 2020 and spring 2021.

Interestingly, **Germany** was an outlier, with no discernible association between education level and employment situation.

Figure 6 Distribution of employment situation, by level of education, country and point in time (proportions)

HOUSEHOLD-RELATED DIFFERENCES IN EMPLOYMENT CONDITIONS

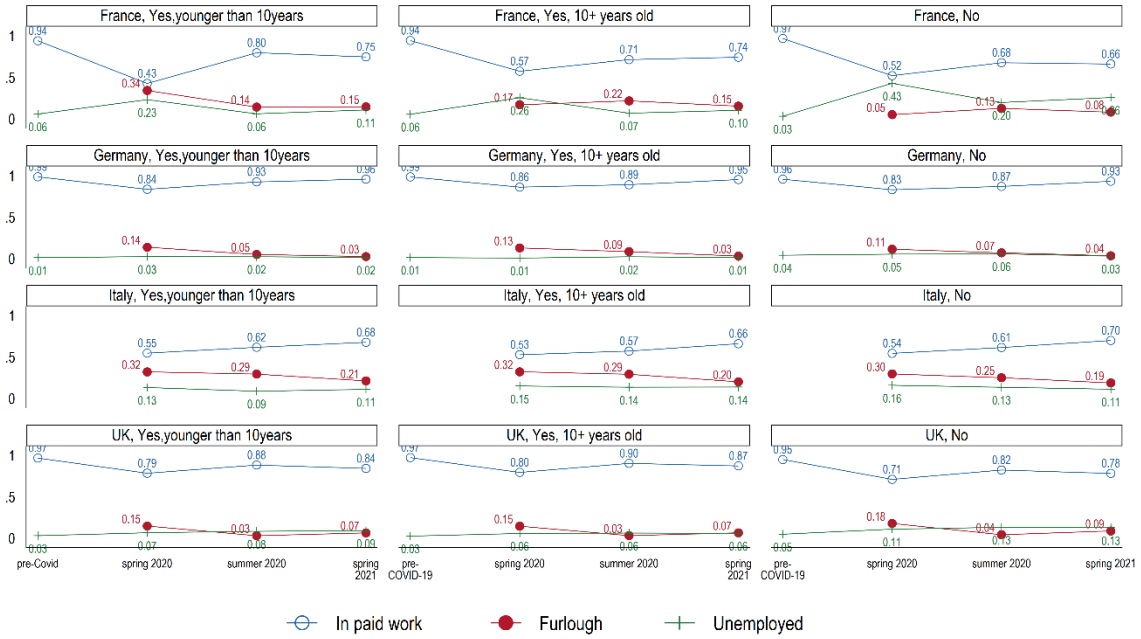
There was no universal and straightforward pattern in the association between having children and employment across all four countries (Figure 7).

In **France** and the **UK**, people with no children were more likely to drop out from the job market when the pandemic started. This could possibly be an age effect: on average, people without children tend to be younger and earlier in their professional careers, thus are more vulnerable to job market shocks. In addition, they more often work in non-essential industries and are employed on precarious contracts.

In **France**, the age of children was also a relevant factor. Although in spring 2020 parents of children older than 10 years of age had a slightly higher likelihood of being in paid employment, that relationship reversed in the later stage of the pandemic (summer 2020 and spring 2021). Additionally, people without children were at greater risk of becoming unemployed rather than furloughed, which corroborates the interpretation of an age-related association. The **UK** showed no differentiation related to children's age, however, and the distribution of people not in paid employment between those furloughed and unemployed was similar across all groups.

Interestingly, in **Germany and Italy**, there was no association between having children and employment.

Figure 7 Distribution of employment situation, by presence of children, country and point in time (proportions)



PLACE OF WORK DURING THE COVID-19 PANDEMIC

One of the major changes brought about by the pandemic related to place of work and the need/possibility to work from home. As strict lockdowns aimed to contain the spread of the virus by limiting people's movements for varying periods of time, public administrations and private companies began

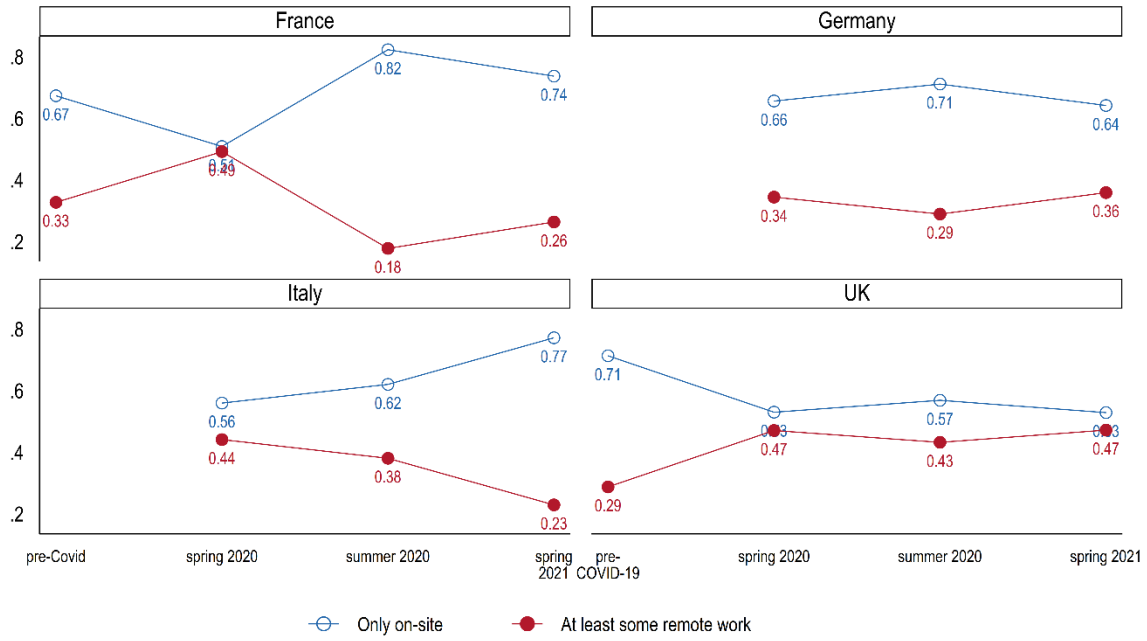
to implement remote working where possible as a means of maintaining productivity while allowing workers to keep their jobs and stay safe in their homes.

The question of how many workers – and especially which workers – worked from home during the pandemic is relevant to inequalities because only certain types of jobs could be done remotely (e.g. white-collar jobs) while other occupations had to be carried out on-site (Marzec et al., 2021) Therefore, in the periods of strict lockdown, people in the latter group were more at risk of being dismissed or furloughed, or, if they were at work, were forced to face a higher health risk.

Figure 8 shows the place of work by country and point in time. In **France**, the share of remote work rose from 0.33 to 0.49, with a comparable increase in the **UK** (from 0.29 to 0.47). In **Italy**, about half of employed people worked remotely during the first wave of the pandemic in spring 2020, while the figure was somewhat lower for **Germany** (0.34).

Throughout the year, the proportion of respondents working remotely decreased in both France and Italy, in line with the easing of pandemic restrictions. In contrast, remote working remained stable in both the UK and Germany up to spring 2021.

Figure 8 Distribution of place of work, by country and point in time (proportions)



GENDER-RELATED DIFFERENCES IN PLACE OF WORK

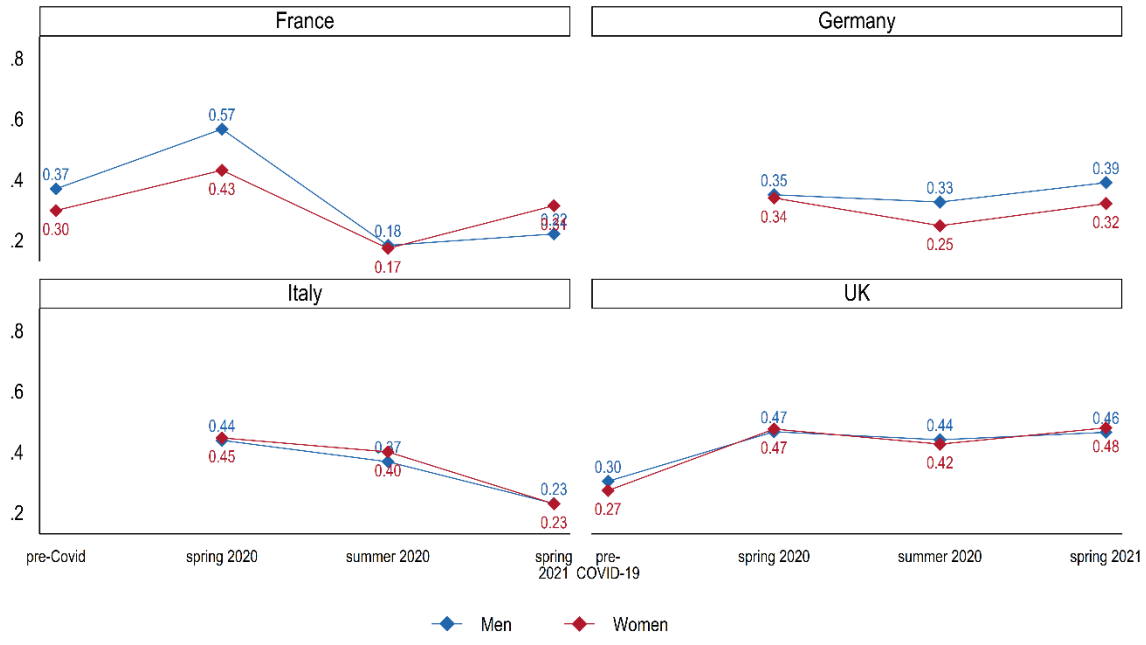
The use of teleworking might have affected women and men differently, making it useful to look at the distribution of place of work by gender (**Figure 9**).

In **France,** a slightly higher proportion of men reported working remotely before the pandemic, with the gender gap increasing in spring 2020, when both genders experienced a substantial increase in working from home. However, the proportion of those working remotely dropped in summer 2020, with a reversal of the gender gap evident in spring 2021, when there was a higher prevalence of women working from home (about 10 p.p.).

A different pattern is visible in the UK, where slightly more women than men were in telework prior to the pandemic. Since spring 2020, however, as the proportion of employed people working from home increases, the gender gap disappears (Figure 9).

In **Germany and Italy,** where data are not available on remote work before the pandemic, about the same proportion of women and men worked remotely in spring 2020. A negligible gender difference in the proportion of teleworkers is evident in later points in time in Italy, as remote work became less common among both genders. In Germany, however, women reduced their use of remote work through to spring 2021, while men maintained their teleworking level, resulting in a widening of the gender gap.

Figure 9 Distribution of remote work, by country, point in time and gender (proportions)

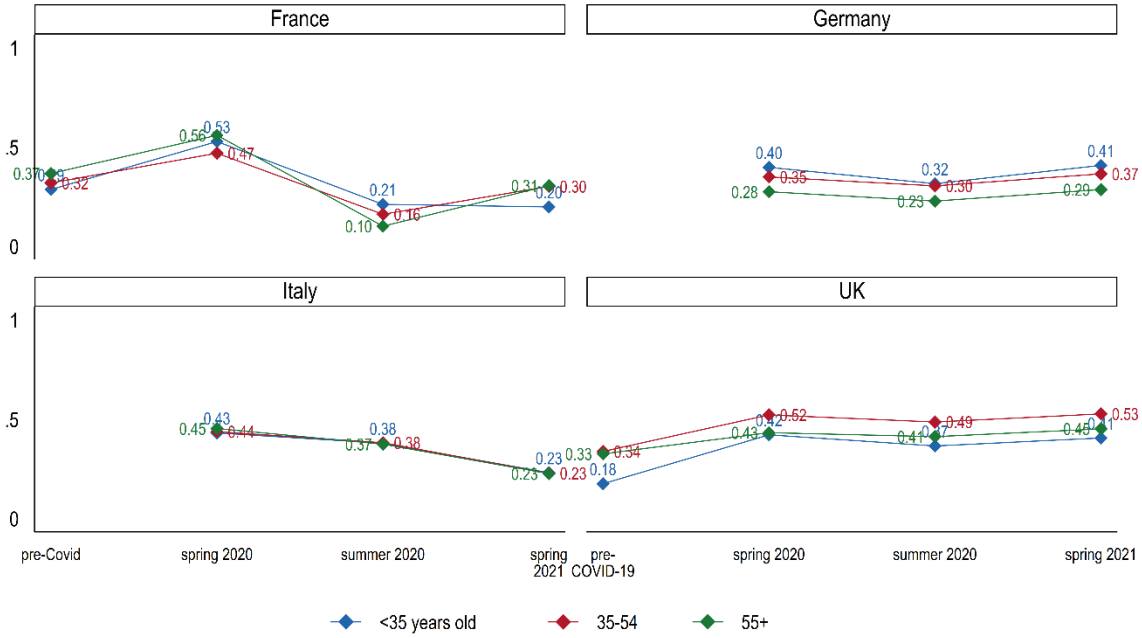


AGE-RELATED DIFFERENCES IN PLACE OF WORK

The study expected to find meaningful differences across age groups. **Figure 10** shows the distribution of place of work by age. In both **France** and the **UK**, remote working was slightly more frequent among employed people aged 55+ compared to younger workers (-8 p.p. in France and -16 p.p. in the UK).

The opposite occurred in **Germany**, where younger workers (<35 years of age) reported the highest share of teleworking. **Italy** showed no evident age-related differences in employed people's use of teleworking.

Figure 10 Distribution of remote work, by country, point in time and age (proportions)



EDUCATION-RELATED DIFFERENCES IN PLACE OF WORK

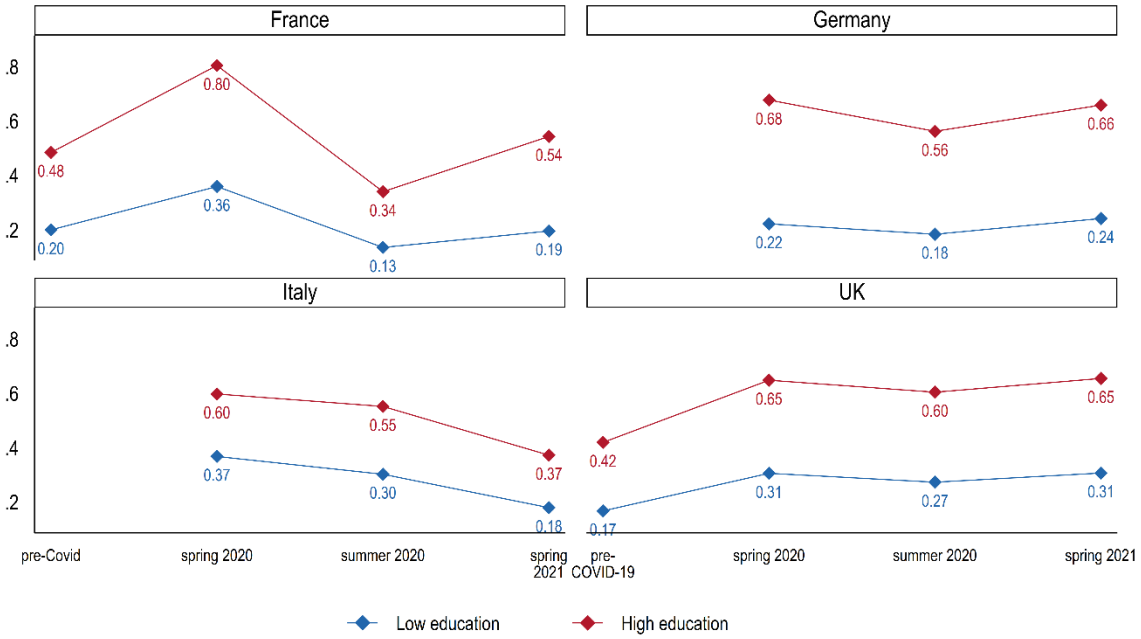
Figure 11 shows that at most points in time people with tertiary education were more likely to do some telework (approximately 50-60 %) than those with a lower level of education (about 20-30 %).

This association was the strongest in **Germany** (difference of about 40 p.p.), slightly weaker in the UK (in the range of 25 p.p. and 34 p.p.) and **France** (in the range of 21 p.p. and 44 p.p.), and weakest in **Italy** (about 20 p.p.).

This association was observed before the outbreak of COVID-19 and continued during the pandemic. The strength of the association was relatively stable over time and there was no clear pattern in its variation across countries. It is possible that the observed fluctuations (e.g. a slightly higher difference in France in spring 2020, or a smaller difference in Italy in spring 2021) were simply random.

The observed relationship between education and telework may reflect occupation: people with tertiary education tend to be overrepresented in occupations in which the nature of the tasks allows for doing the job remotely (e.g. professional and white-collar occupations). This is in contrast to many manual jobs, where being physically on site is required. In addition, the level of education tends to be positively correlated with the likelihood of managerial duties, with people working in managerial positions more likely to work from home.

Figure 11 Distribution of remote work, by country, point in time and education (proportions)



HOUSEHOLD-RELATED DIFFERENCES IN PLACE OF WORK

No clearcut association was identified between telework and having children (Figure 12).

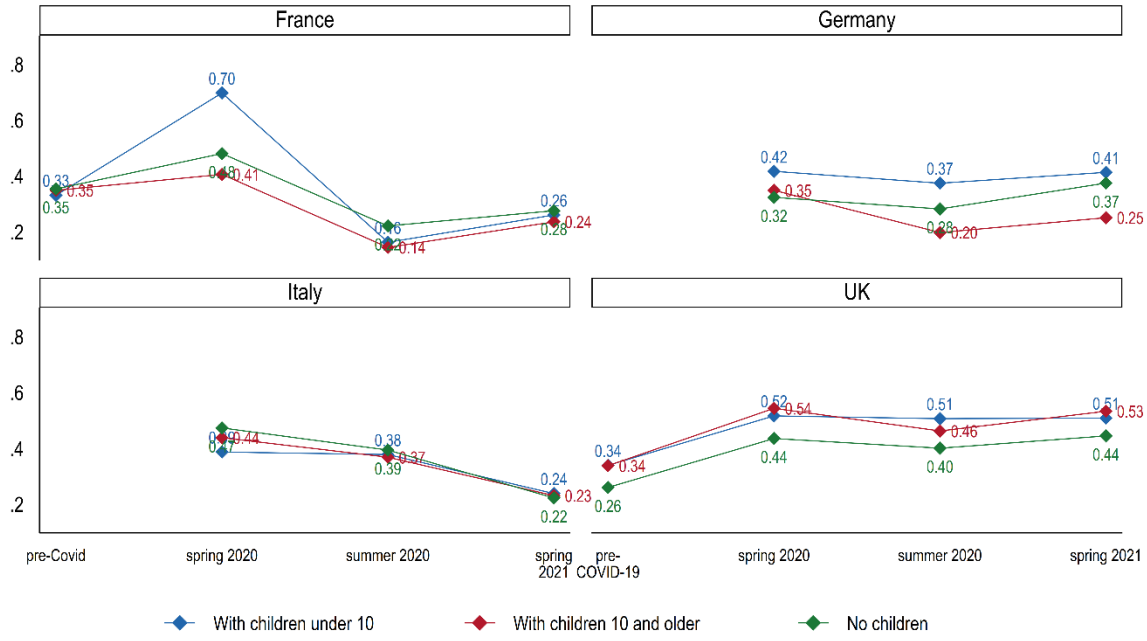
In **Italy**, there was no association between telework and having children, except in spring 2020, when people living in households with no children were more likely to work remotely than those with children aged 10 and older, especially those whose children were younger than 10 years old. However, the observed differences were quite small.

In **France**, the most striking finding was a sudden spike in the share of people living with children younger than 10 years and working remotely – the difference of over 20 p.p. was the highest among the four countries, across all periods. This coincides with school closures, but these were far less strict in France compared to the other countries analysed. In summer 2020, the pattern was very similar to Italy, although, again, the differences were very modest.

In the **UK**, people living with children, regardless of their age, were more likely to telework than those with no children.

The pattern was quite different in **Germany**, where people living with children younger than 10 years old were most likely to work remotely, but those with older children were least likely to telework, and people living without children fell somewhere in the middle.

Figure 12 Distribution of remote work, by country, point in time and children at home (proportions)



SUBJECTIVE WELL-BEING AND MENTAL HEALTH DURING THE COVID-19 PANDEMIC

This research note sought to investigate subjective well-being and mental health during the pandemic, including the consequences of changing work and economic conditions on individual subjective well-being. This captures important aspects of social life that are not normally part of official labour market statistics, and reflects the inclusion of good health and subjective well-being as one of the UN Sustainable Development Goals (SDGs) promoted by the EU. More specifically, the study asked the following questions:

a. Did subjective well-being and mental health change during the first lockdown in each country? Were these changes short-lived and was there a recovery between lockdowns?
b. Which social groups were most affected?
c. Were changes to the work and economic situation (job loss/furlough and remote work) related to changes in subjective well-being and mental health?

A decline in subjective well-being was evident in the first lockdown in spring 2020. While there were some signs of recovery, levels of subjective well-being had not rebounded to pre-pandemic levels a year later, in spring 2021. There were no similar decreases in mental health. Surprisingly, average levels of depressive feelings and loneliness remained quite stable over time. Overall, the evidence suggests that the pandemic similarly affected the mental health and subjective well-being of different social groups. Existing gender, age or educational differences remained largely the same as pre-COVID-19.

There were several exceptions, however. Feelings of loneliness increased far more for younger people, while the subjective well-being of people without children decreased more than the subjective well-being of people living with children. The results confirmed that employment was related to higher subjective well-being and lower levels of depressive feelings and loneliness. Furlough seemed to buffer some of the negative effects of unemployment, as the subjective well-being and mental health levels of people in furlough were in-between those of employed and unemployed people. Yet, the longer furlough continued, the more subjective well-being and mental health levels decreased towards the levels observed among the unemployed. Remote work (instead of working on site) was not related to better (or worse) subjective well-being or mental health in either the short or long term.

CHANGES IN SUBJECTIVE WELL-BEING AND MENTAL HEALTH

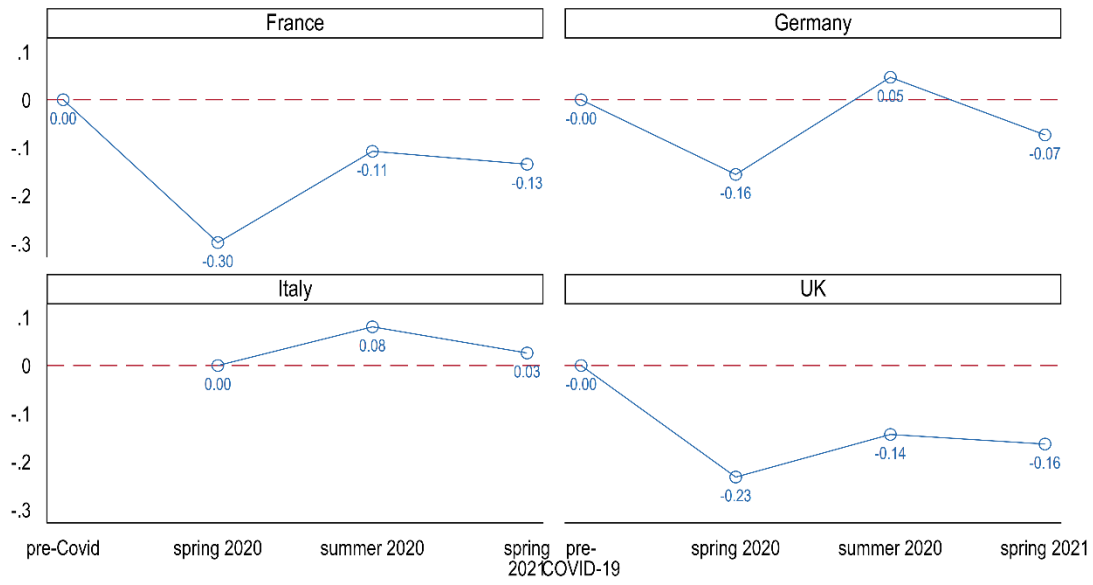
Figure 13 shows changes over time in subjective well-being in France, Germany, Italy and the UK. As detailed in **Table 1**, subjective well-being captures variations in levels of happiness or satisfaction with life. In order to allow comparisons across countries, values were centred around the mean in each country at the first period of observation. Thus, the values reported in Figure 13 indicate the change in average subjective well-being in each country compared to the value of subjective well-being prior to the COVID-19 pandemic. In Italy, for which pre-pandemic information is missing, the reference point is spring 2020.

Respondents in France, Germany and the UK reported lower levels of subjective well-being in spring 2020 than before the pandemic. The level of subjective well-being then increased somewhat in summer 2020 and remained at a similar level in spring 2021. However, it did not return to pre-pandemic levels. Germany alone saw it increase slightly above the baseline in summer 2020, only to drop again in spring 2021.

In Italy, the trend observed during the pandemic was similar: the level of subjective well-being slightly increased in summer 2020 and spring 2021, compared to spring 2020.

Overall, the data suggest that the pandemic took an important toll on individual subjective well-being.

Figure 13 Distribution of subjective well-being, by country and point in time (deviations from the mean)

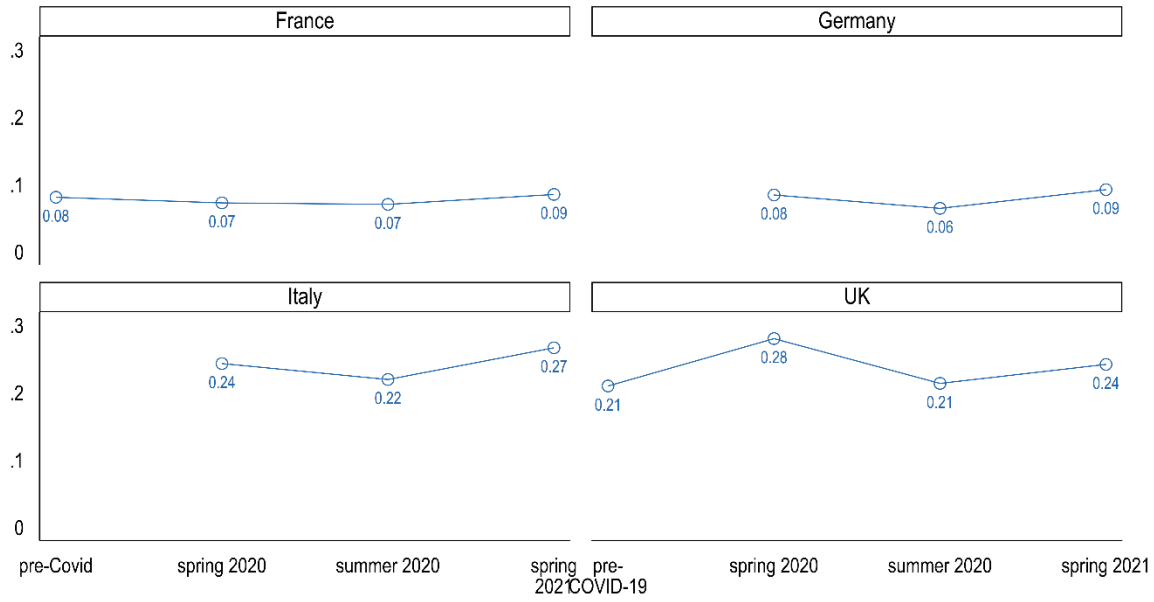


Note: Question wording and response scales varied between countries, so items were standardised and centred around the mean within countries.
Controls: age, sex, education, employment status, having children.

Figure 14 shows the share of respondents reporting high levels of self-diagnosed depressive feelings. The proportion of individuals experiencing high mental distress varied across the four countries, with a higher share reported in Italy (22-27 %) and in the UK (21-28 %). However, this is most likely due to the different measurements.

Looking at changes in the proportion of respondents with depression over time, substantial stability was evident in **France** and **Germany**. However, **Italy** experienced a slight decrease (about 2 p.p.) between spring and summer 2020, followed by an increase in the proportion of respondents with depressive symptoms between summer 2020 and spring 2021 (+5 p.p.). In the **UK**, the proportion of respondents reporting high levels of depression increased at the beginning of the pandemic (+7 p.p.), returning to the pre-pandemic value as early as summer 2020, then increasing slightly again in spring 2021 (+3 p.p.).

Figure 14 Distribution of depressive feelings, by country and point in time (proportion of respondents with high frequency of depressive feelings)



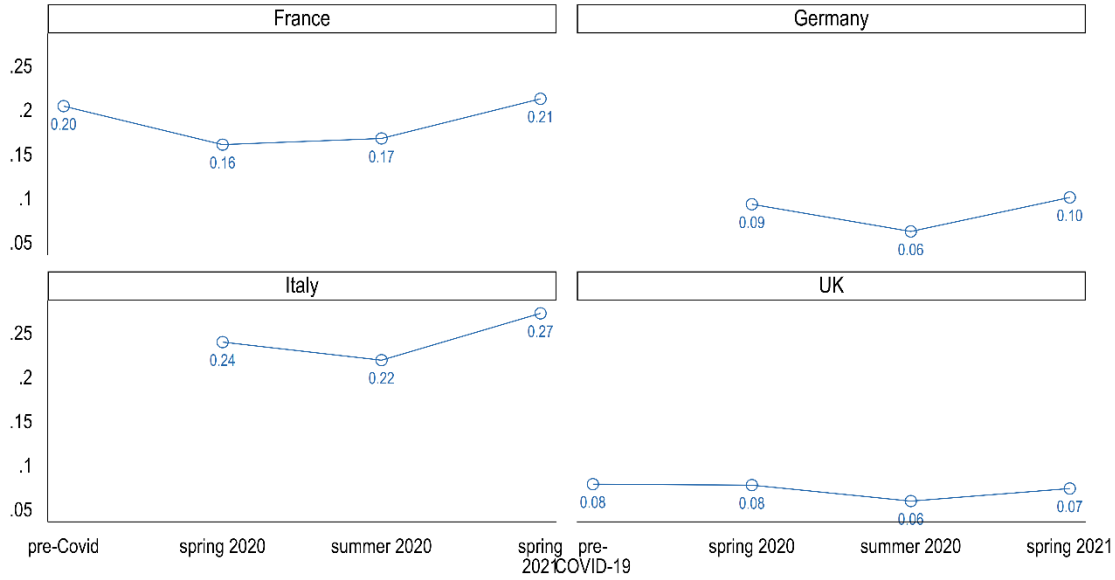
Note: Question wording and response scales varied between countries, so items were dichotomised.
Controls: age, sex, education, employment status, having children.

Finally, levels of loneliness varied across the four countries. Within each country, only minor changes occurred in the proportion of respondents feeling lonely, with each experiencing only minor upward or downward shifts in feelings of loneliness, suggesting that the pandemic period had little impact on this aspect of subjective well-being (**Figure 15**).

The UK findings on depressive feelings are in line with the predominant findings in other studies, which similarly showed increasing levels of depressive feelings during the pandemic, particularly during the first lockdown (e.g. Barslund and Thil, 2022; Beutel et al., 2021). Yet, the stability of depressive feelings

in France and of loneliness in all the countries, together with some signs of recovery in Germany and Italy, also reflect the inconclusiveness of previous studies, which often found only small changes over time (Peters et al., 2020) or report different results depending on the measures used for mental health (Entringer et al., 2020). Some studies that rely on a comparison with data from pre COVID-19 face the methodological challenge of changed sampling and survey modes, making it difficult to disentangle observed changes from methodological changes.

Figure 15 Distribution of loneliness, by country and point in time (proportion of respondents with high frequency of feelings of loneliness)



Note: Question wording and response scales varied between countries, so items were dichotomised.
Controls: age, sex, education, employment status, having children.

GENDER-RELATED DIFFERENCES IN SUBJECTIVE WELL-BEING AND MENTAL HEALTH

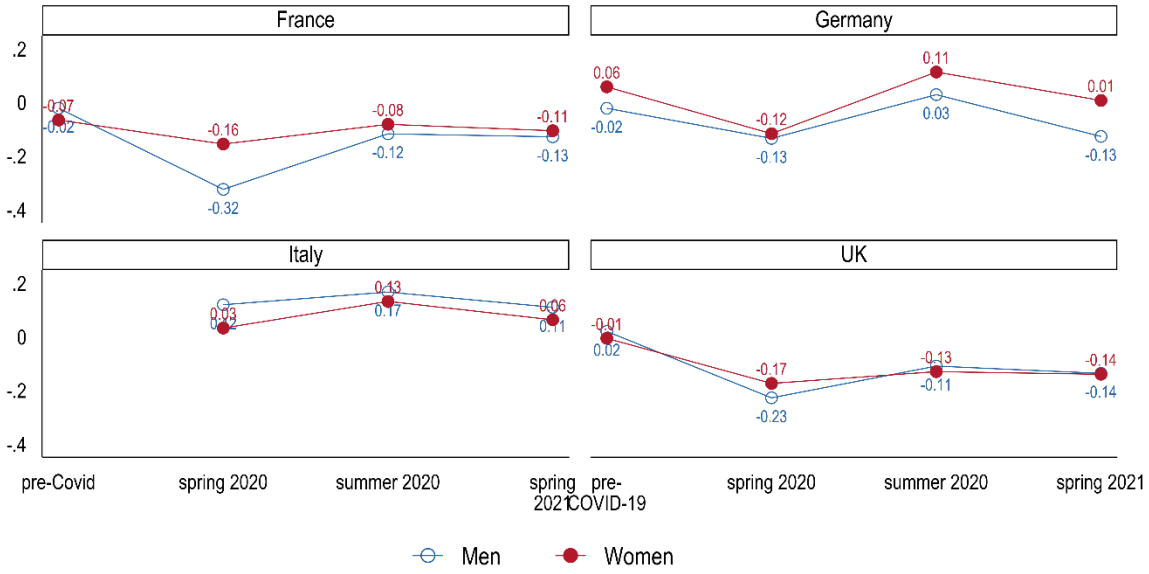
The gender gap in subjective well-being during the pandemic was quite small and remained largely stable (Figure 16). Women were more likely than men to report feeling very or frequently depressed or lonely (similar to previous studies), but overall levels were relatively stable across countries for both genders (Figure 17 and Figure 18).

Some changes in the gender gap in subjective well-being occurred over time in **France**, where a widening of the gap was recorded during the first wave of the pandemic in spring 2020, and the decrease in subjective well-being was especially pronounced for men (**Figure 16**).

In **Germany** and **Italy**, the gender gap in subjective well-being remained relatively stable.

In the UK, similar to France, the gender gap widened in the spring of 2020, due to a larger fall in subjective well-being among men than among women.

Figure 16 Distribution of subjective well-being, by country, point in time and gender (deviations from the mean)



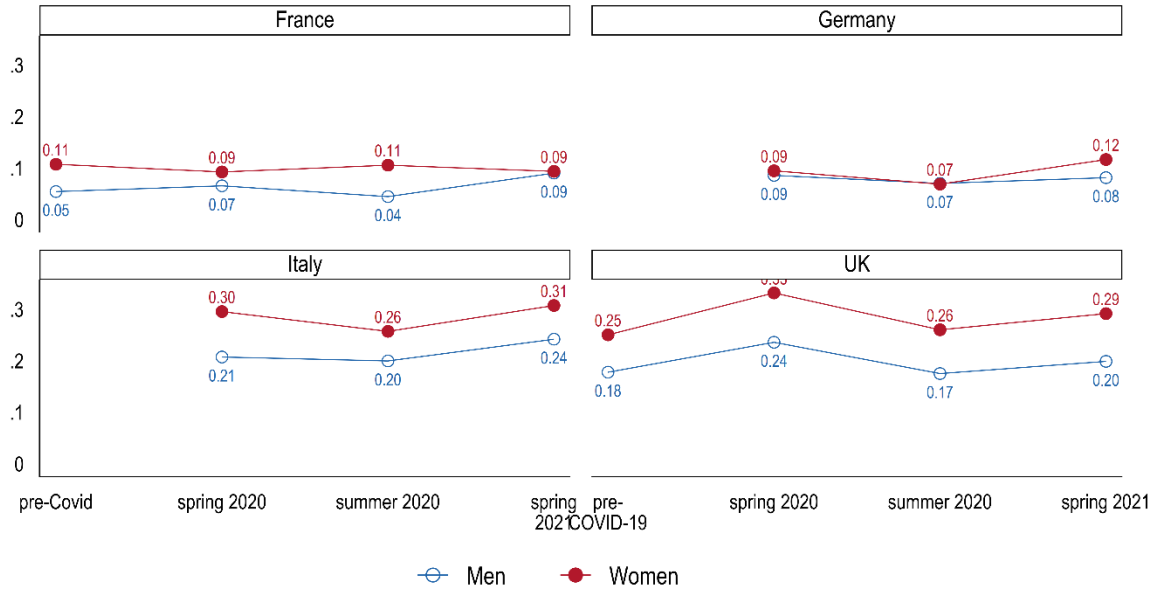
Note: Question wording and response scales varied between countries, so items were standardised and centred around the mean within countries.
Controls: age, education, employment status, having children.

Figure 17 shows the proportion of women and men reporting feeling depressed at the different points of data collection.

Women reported higher levels of depression in Italy and the UK (about 10 p.p.). Smaller differences between women and men were also evident in France, while in Germany, the risk of feeling depressed was evenly distributed between the genders.

Interestingly, with few exceptions, levels of depression remained largely stable among women and men in each country. There was a small decrease for women in Germany and Italy in the summer of 2020 and a small increase for both women and men in the UK in the spring of 2020, which could be interpreted in the light of societal effects of the COVID-19 pandemic.

Figure 17 Distribution of depressive feelings, by country, point in time and gender (proportion of respondents with high frequency of depressive feelings)



Note: Question wording and response scales varied between countries, so items were dichotomised.
Controls: age, education, employment status, having children.

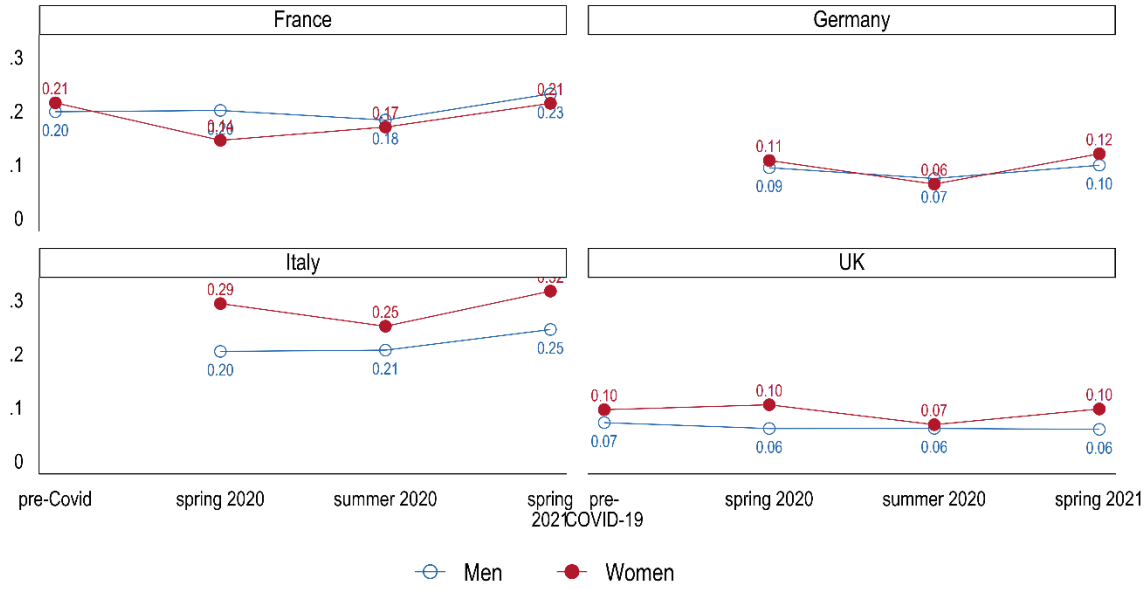
Finally, **Figure 18** shows the proportion of women and men feeling lonely during the various stages of the pandemic.

In Italy and the UK, women were somewhat more likely than men to report feeling very or frequently lonely, while gender differences were negligible in Germany and the gender gap was reversed in France. Levels of loneliness did not vary much during the different points in time for either gender.

Italy showed the largest gender gap in loneliness. Nearly 30 % of Italian women reported feeling lonely a lot of the time in spring 2020, compared to 20 % of Italian men. The gap decreased during summer 2020, before increasing again during the lockdown of spring 2021. That result could be linked to the particularly strict nature of the COVID-19 lockdowns in Italy, which was the first European country to be hit by the pandemic and imposed severe bans on movement and mixing, especially during the first wave.

In **France**, men reported greater levels of loneliness during the pandemic, but the gender gap was small. The main change over time was observed among women, whose loneliness actually decreased during the first wave of the pandemic, in line with other studies on the French COVID-19 experience (Recchi et al., 2021).

Figure 18 Distribution of loneliness, by country, point in time and gender (proportion of respondents with high frequency of feelings of loneliness)



Note: Question wording and response scales varied between countries, so items were dichotomised.
Controls: age, education, employment status, having children.

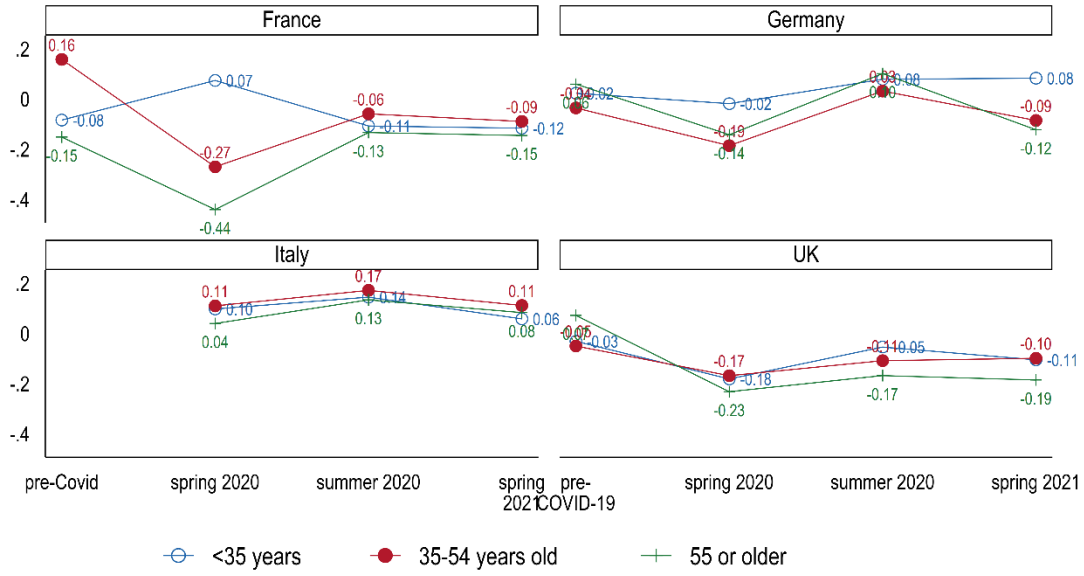
AGE-RELATED DIFFERENCES IN SUBJECTIVE WELL-BEING AND MENTAL HEALTH

Minor differences were observed in subjective well-being among different age groups. Changes across time periods were similarly limited, with the exception of France (Figure 19). Younger respondents appeared to be more at risk of depressive symptoms (Figure 20) and loneliness (Figure 21) than older people.

In **France**, the largest age differences in subjective well-being were between the pre-pandemic period and spring 2020, where younger respondents reported an increase in subjective well-being and older respondents reported a decrease. However, such changes were short lived, as the difference between the groups was no longer significant as of summer 2020.

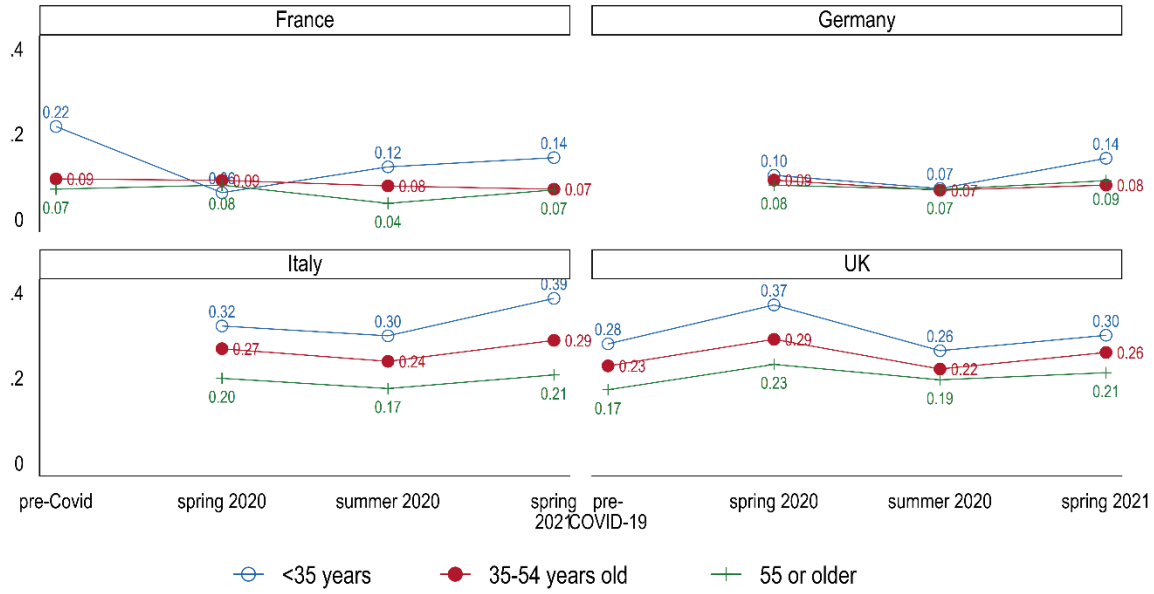
In **Germany** and the **UK,** a mild decrease in subjective well-being was evident among the 35-54 and 55+ age groups during spring 2020, followed by minor fluctuations in subsequent waves. In **Italy**, values of subjective well-being remained relatively stable over time.

Figure 19 Distribution of subjective well-being, by country, point in time and age (deviations from the mean)



Note: Question wording and response scales varied between countries, so items were standardised and centred around the mean within countries.
Controls: sex, education, employment status, having children.

Figure 20 Distribution of depressive feelings, by country, point in time and age (proportion of respondents with high frequency of depressive feelings)

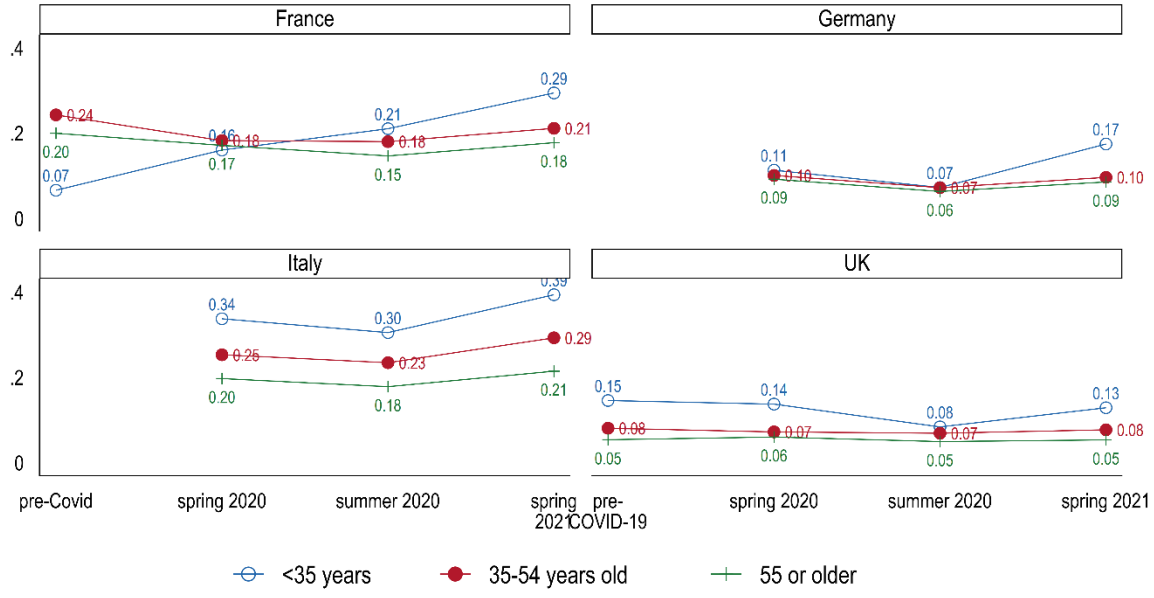


Note: Question wording and response scales varied between countries, so items were dichotomised.
Controls: sex, education, employment status, having children.

Figure 20 shows the proportion of respondents from different age groups who often felt depressed or felt very depressed at the different points of the data collection. Overall, younger respondents appeared to be at greater risk of depressive symptoms, at all points in time and in all countries.

This was especially true in Italy and the UK. Differences between age groups were less pronounced in France and Germany, which also showed little variation over time.

Figure 21 Distribution of loneliness, by country, point in time and age (proportion of respondents with high frequency of feelings of loneliness)



Note: Question wording and response scales varied between countries, so items were dichotomised
Controls: sex, education, employment status, having children.

Similar to the results for depression, loneliness was also more frequent among younger respondents (**Figure 21**). This result was found at all points in time and in all countries, with the exception of **France**, where older respondents felt more lonely than their younger counterparts in the pre-pandemic period, but that situation reversed during COVID-19 so that, by spring 2021, the under-35s were most likely to feel lonely (0.29).

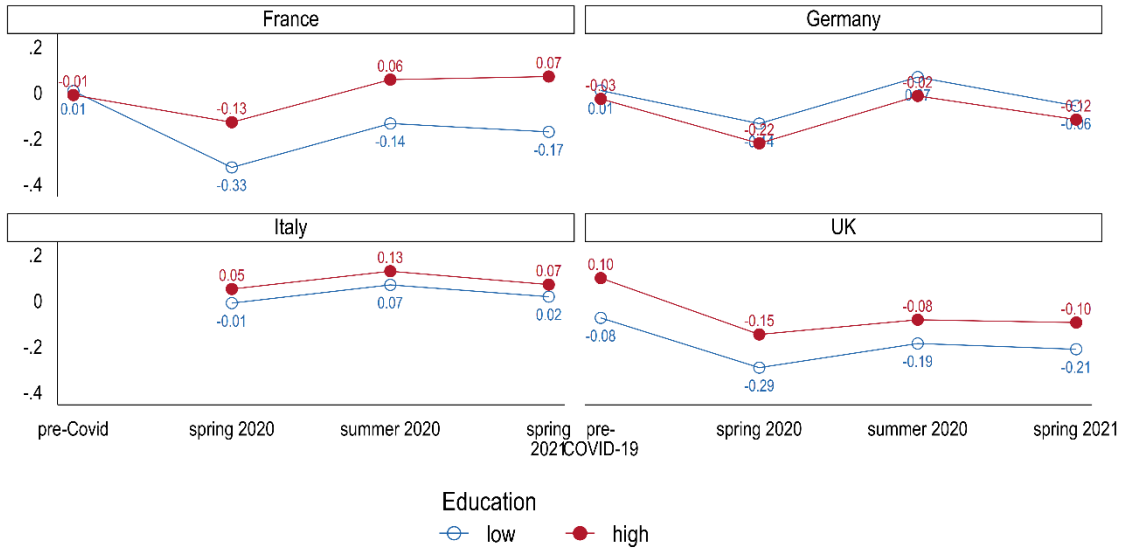
The gap between younger and older people increased over time in **Germany** and **Italy**, where, in the last wave, 0.17 and 0.39 of younger respondents reported feeling lonely, compared to 0.09 and 0.21 of respondents aged 55 and above, respectively. In the UK, the loneliness gap between age groups remained quite stable across the four points in time.

EDUCATION-RELATED DIFFERENCES IN SUBJECTIVE WELL-BEING AND MENTAL HEALTH

The pandemic did not impact different educational groups in the same way (**Figure 22**). In France, Italy and the UK, the level of subjective well-being was lower among respondents who did not have tertiary education. The gap between low-educated and highly educated respondents was highest in France and somewhat smaller in Italy and the UK, where the gap remained comparable before and throughout the pandemic. The difference in France appeared only during the pandemic.

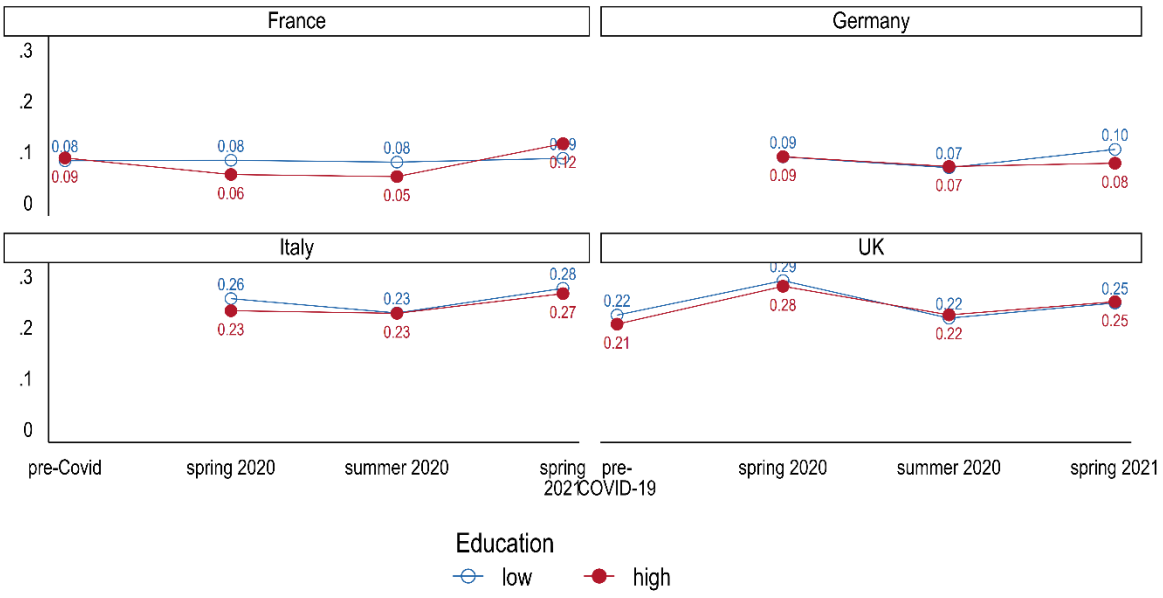
In **Germany**, the education gap in subjective well-being was fairly small, but the direction of the association was reversed, i.e. low-educated people reported somewhat higher levels of satisfaction before and during the pandemic.

Figure 22 Distribution of subjective well-being, by country, point in time and education (deviations from the mean)



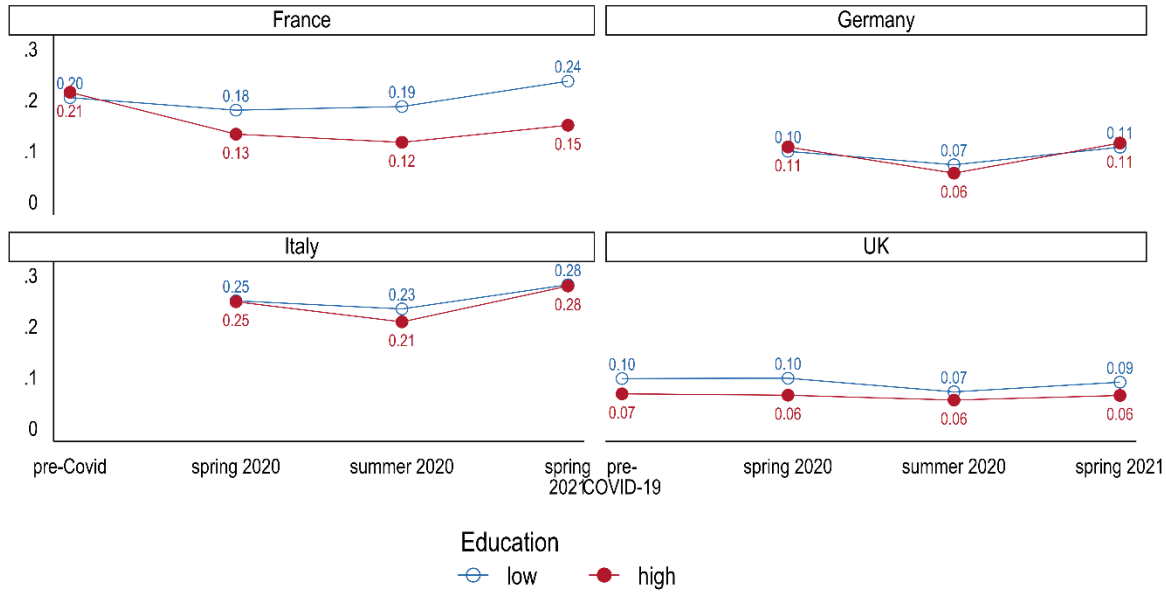
Note: Question wording and response scales varied between countries, so items were standardised and centred around the mean within countries.
Controls: age, sex, employment status, having children.

Figure 23 Distribution of depressive feelings, by country, point in time and education (proportion of respondents with high frequency of depressive feelings)



Note: Question wording and response scales varied between countries, so items were dichotomised.
Controls: age, sex, employment status, having children.

Figure 24 Distribution of loneliness, by country, point in time and education (proportion of respondents with high frequency of feelings of loneliness)



Note: Question wording and response scales varied between countries, so items were dichotomised.
Controls: age, sex, employment status, having children.

Interestingly, a different pattern was observed for the reported level of depression. **Figure 23** shows that the proportion of people reporting high values of depressive feelings was very similar among both educational groups across countries.

In the **UK**, the proportion of respondents reporting high values of loneliness was lower among those with tertiary education than among those without (**Figure 24**). That difference was already evident before the outbreak of COVID-19 and remained stable throughout the pandemic, at around 3 p.p. In France, there was no such difference before the pandemic, but the gap increased over its course, from 5 p.p. in spring 2020 to 9 p.p. in spring 2021.

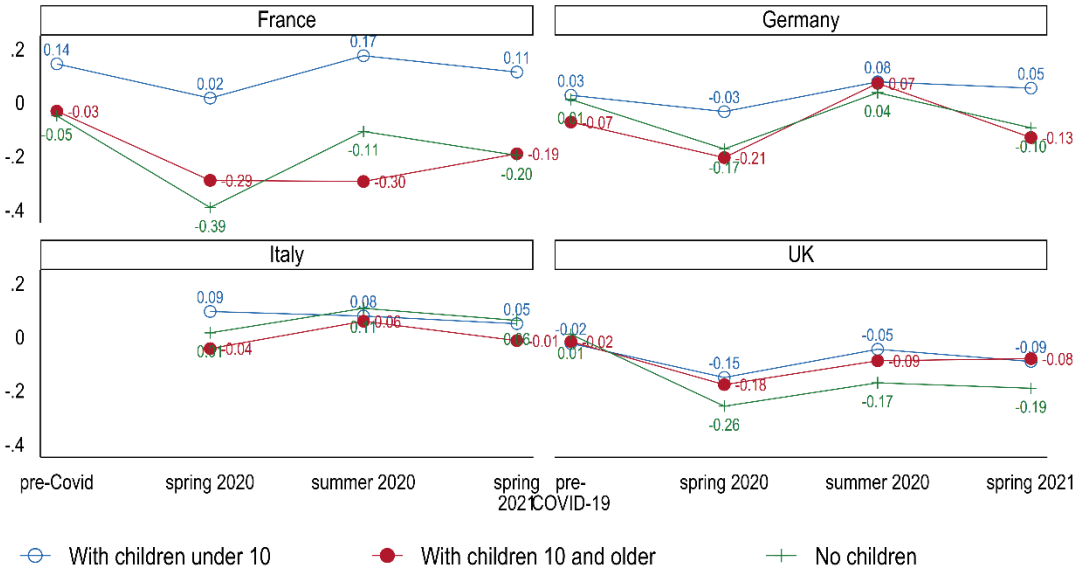
No significant difference between low-educated and highly educated respondents was observed in **Germany** or **Italy**.

HOUSEHOLD-RELATED DIFFERENCES IN SUBJECTIVE WELL-BEING AND MENTAL HEALTH

Figure 25 shows that the association between having children and subjective well-being was strongest in **France**, where people with children younger than 10 years old had higher levels of subjective well-being than people with older children or people with no children. In spring 2022, for example, people with children under 10 scored 0.41 standardised points higher than people without children. This was not a pandemic effect, however – the relationship was observable before the outbreak of COVID-19 (0.19 standardised points difference).

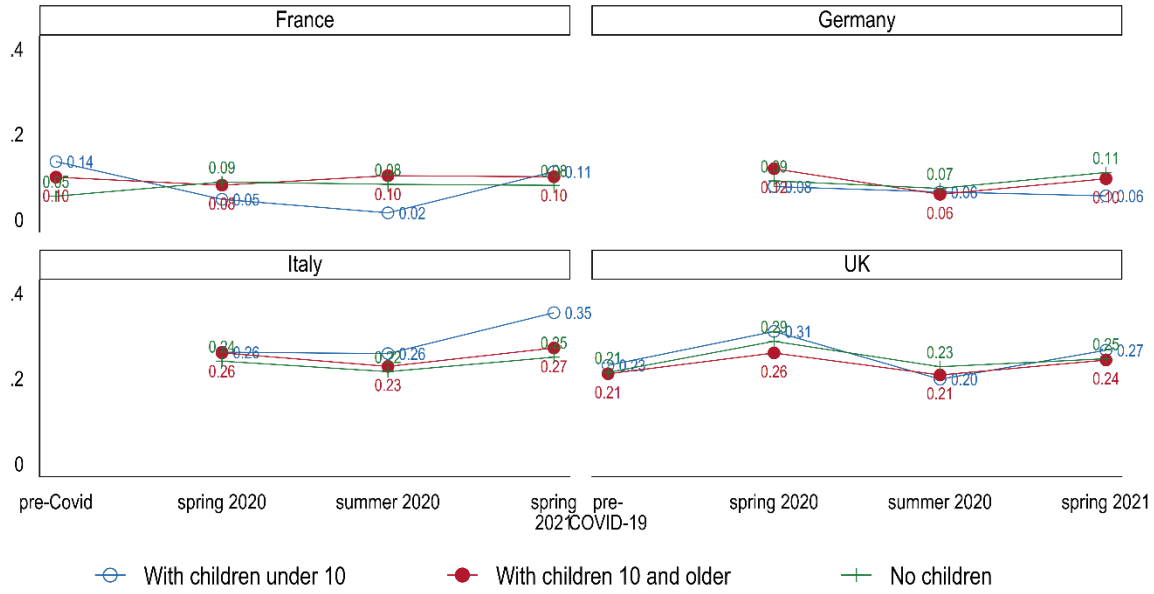
A similar, albeit much weaker, association was observed in **Germany** and the **UK**, where people with younger children had the highest levels of subjective well-being, especially compared to households without children. This result might have been caused by the pandemic, as the gap widened after the outbreak of COVID-19. Only minor differences between groups were observed in **Italy** during the pandemic.

Figure 25 Distribution of subjective well-being, by country, point in time and presence of children (deviations from the mean)



Note: Question wording and response scales varied between countries, so items were standardised and centred around the mean within countries.
Controls: age, sex, education, employment status.

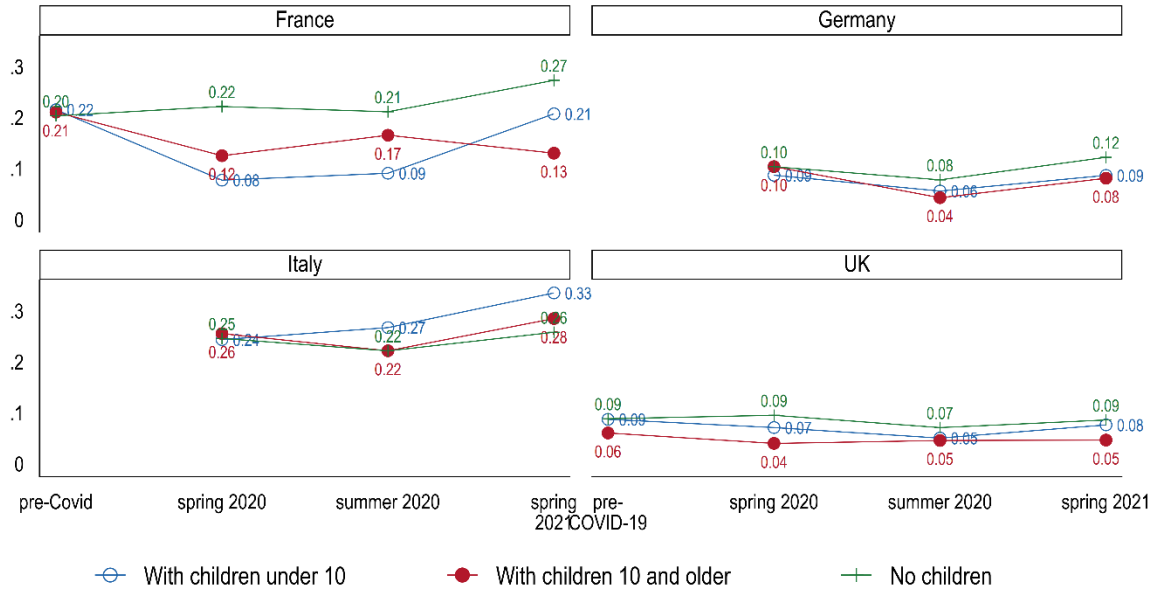
Figure 26 Distribution of depressive feelings, by country, point in time and presence of children (proportion of respondents with high frequency of depressive feelings)



Note: Question wording and response scales varied between countries, so items were dichotomised.
Controls: age, sex, education, employment status.

Having children and children's age had little discernible effect on the level of high depressive feelings (**Figure 26**). The two exceptions were **France** in spring and summer 2020, where the share of respondents reporting frequent feelings of depression was lowest among people who had children under 10, and **Italy**, where the percentage of respondents reporting high depressive feelings was highest in the group with young children.

Figure 27 Distribution of loneliness, by country, point in time and presence of children (proportion of respondents with high frequency of feelings of loneliness)



Note: Question wording and response scales varied between countries, so items were dichotomised
Controls: age, sex, education, employment status.

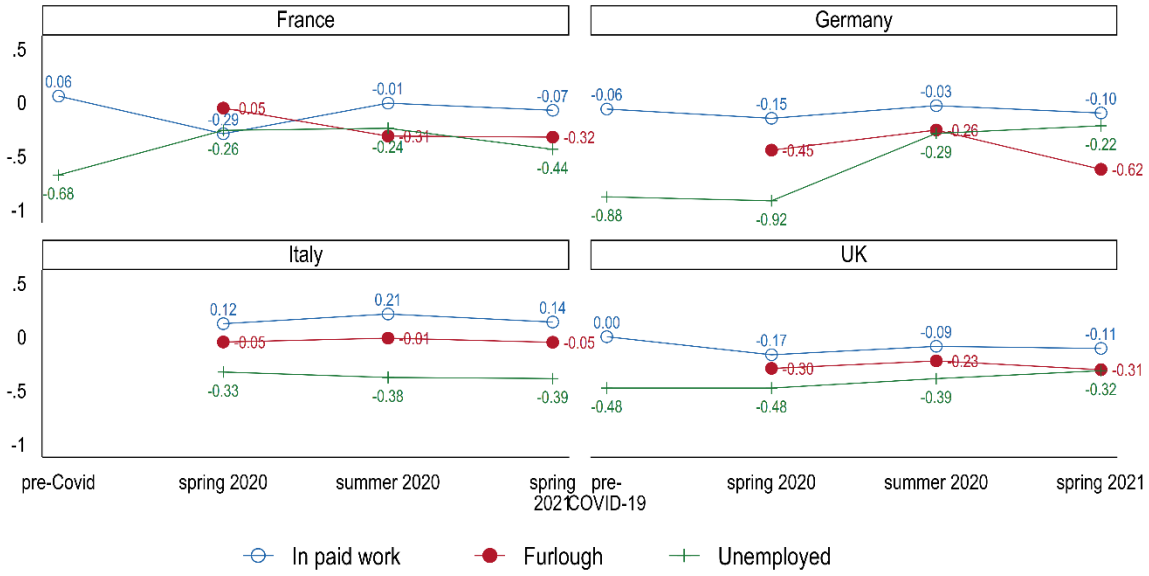
The pattern was similar for loneliness (**Figure 27**). In the **UK** and **Germany**, the differences between groups were very small. In **France**, again, the share of respondents with loneliness was lower among people who had children under 10 than among other groups. In spring 2020, for example, there was a 14 p.p. difference in the incidence of loneliness between people with children under 10 and people without children. The gap between these groups was higher for loneliness than for depressive feelings. In other words, it appears that respondents without children in the household were more exposed to feelings of loneliness (and less so depression) compared to people living with children, especially younger children.

This was not the case in **Italy**, where the proportion of respondents reporting high values of loneliness slightly increased during the pandemic and was generally higher in households with children.

EMPLOYMENT-RELATED DIFFERENCES IN SUBJECTIVE WELL-BEING AND MENTAL HEALTH

Figure 28 shows that subjective well-being remained stable among all groups in **Italy** and the **UK**. By contrast, the subjective well-being of the unemployed increased in France between the pre-pandemic period (2019) and spring/summer 2020, and in Germany between the pre-pandemic period (2019) and summer 2020.

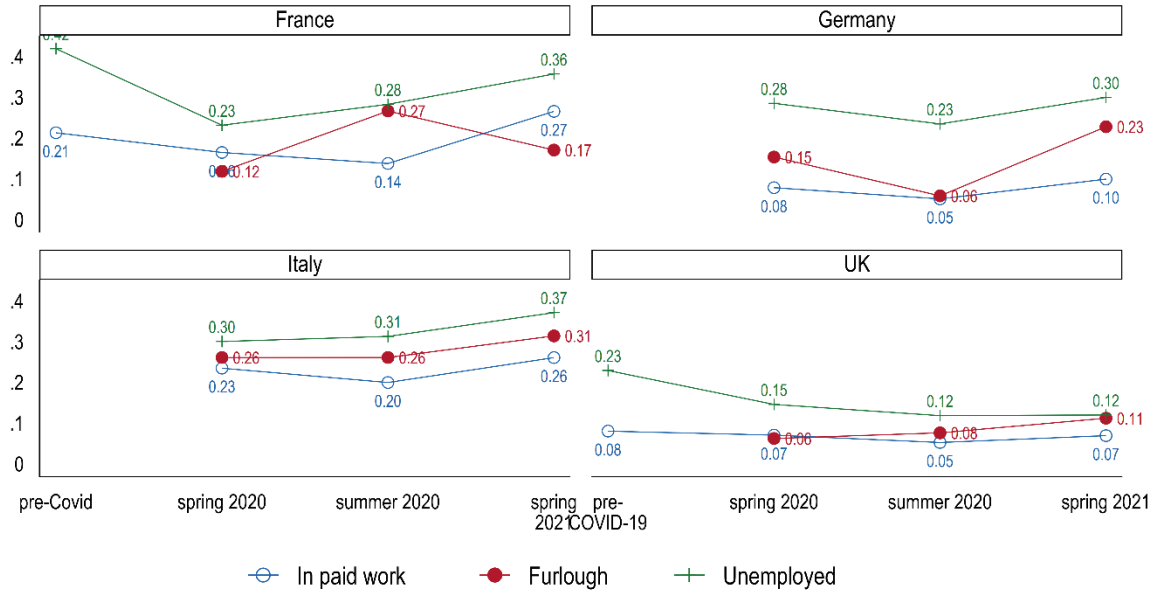
Figure 28 Distribution of subjective well-being, by country, point in time and employment situation (deviations from the mean)



Note: Question wording and response scales varied between countries, so items were standardised and centred around the mean within countries.
Controls: age, sex, education, having children.

Finally, the level of subjective well-being for respondents in furlough fell somewhere between that for employed and unemployed people in most of the countries for most of the relevant periods of time. An important exception was Germany in spring 2021, when respondents in furlough experienced a considerable drop in their subjective well-being.

Figure 29 Distribution of depressive feelings, by country, point in time and employment situation (proportion of respondents with high frequency of depressive feelings)



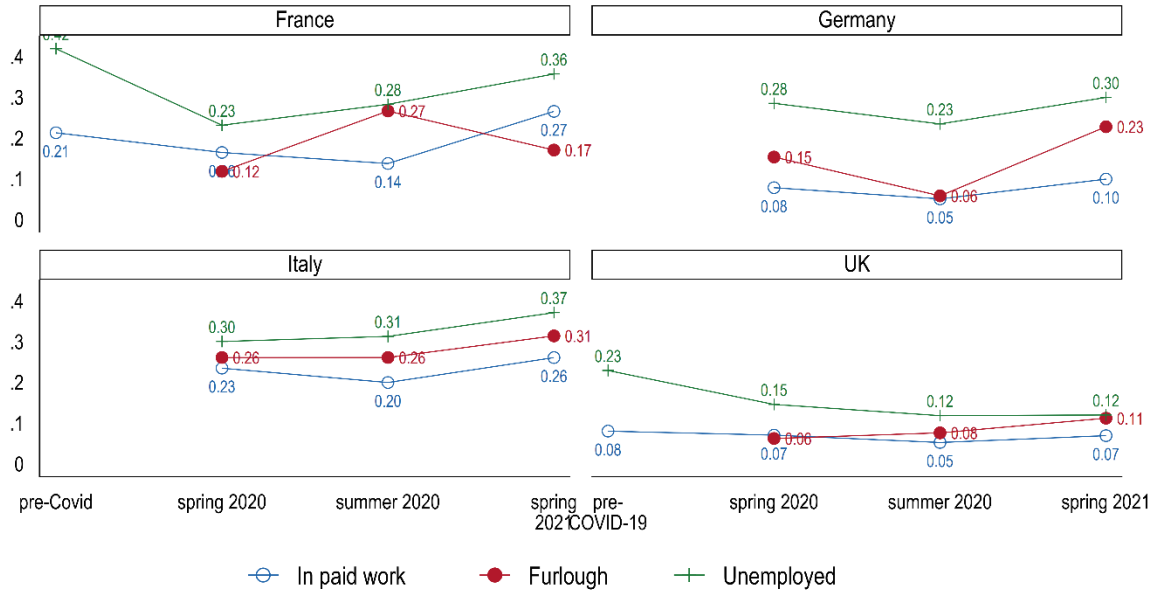
Note: Question wording and response scales varied between countries, so items were dichotomised
Controls: sex, education.

Figure 29 shows the proportion of respondents with various employment statuses who reported high levels of depression. Individuals in paid work reported the lowest share of depression in all countries, while unemployed respondents reported the highest share, and those in furlough fell somewhere in between.

The proportion of respondents in paid work reporting high levels of depressive symptoms remained stable in all countries. In **France**, the proportion of unemployed people reporting being depressed significantly reduced during the pandemic (falling from 25% to 7%), but increased slightly in the **UK** (from 35% to 42%).

In **Italy**, the share of depression remained largely stable over time in all groups, while in **Germany**, the proportion of respondents in furlough with depressive symptoms decreased between spring and summer 2020 (-10 p.p.) and increased again in spring 2021, closing the gap with unemployed people.

Figure 30 Distribution of loneliness, by country, point in time and employment situation (proportion of respondents with high frequency of feelings of loneliness)



Note: Question wording and response scales varied between countries, so items were dichotomised
Controls: sex, education.

Figure 30 shows the proportion of individuals reporting feeling lonely, by country and employment status. Overall, findings were very similar to those for subjective well-being and depression, with the highest share of loneliness among unemployed people and the lowest share among employed respondents.

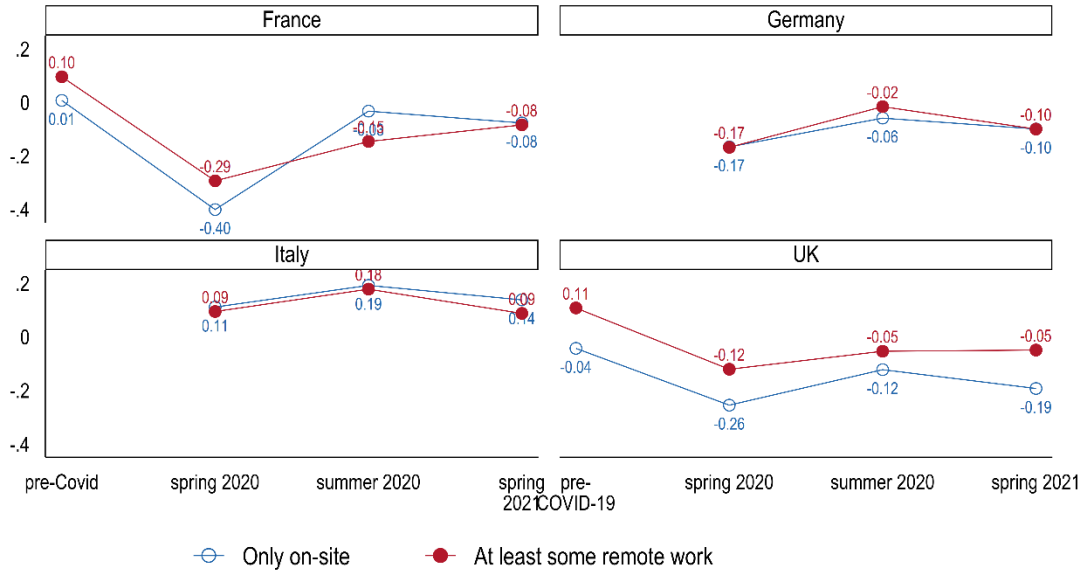
Interestingly, the share of loneliness reported by those in furlough was almost the same as that reported by those in paid work in Italy and the UK, while France and Germany experienced an increase and a decrease, respectively, in summer 2020. This trend led to a reduction in the gap with the unemployed in France and with the employed in Germany.

REMOTE WORK AND SUBJECTIVE WELL-BEING AND MENTAL HEALTH

Figure 31 shows levels of subjective well-being, by place of work and country. Overall, employed individuals working from home reported slightly higher levels of subjective well-being, on average, in France, Germany and the UK.

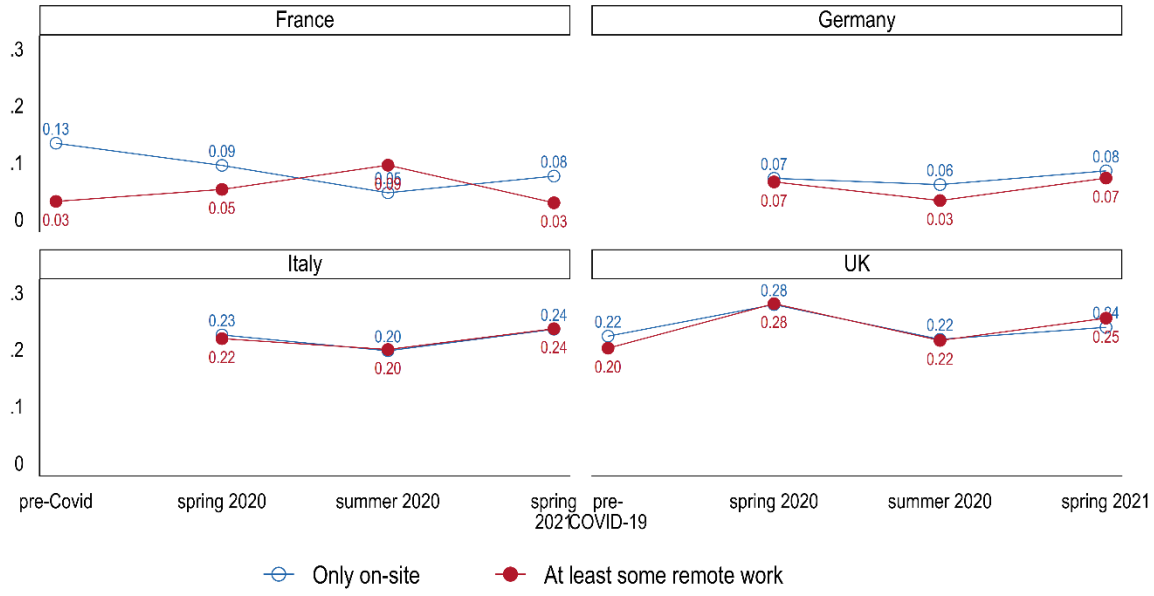
Although the gap between remote and on-site work was almost negligible in **Italy** and **Germany**, the average level of subjective well-being reported by those working on-site at the beginning of the pandemic (spring 2020) was significantly lower in **France** and the **UK** compared to the pre-lockdown period (2019).

Figure 31 Distribution of subjective well-being, by country, point in time and place of work (deviations from the mean)



Note: Question wording and response scales varied between countries, so items were standardised and centred around the mean within countries.
Controls: age, sex, education, having children.

Figure 32 Distribution of depressive feelings, by country, point in time and place of work (proportion of respondents with high frequency of depressive feelings)



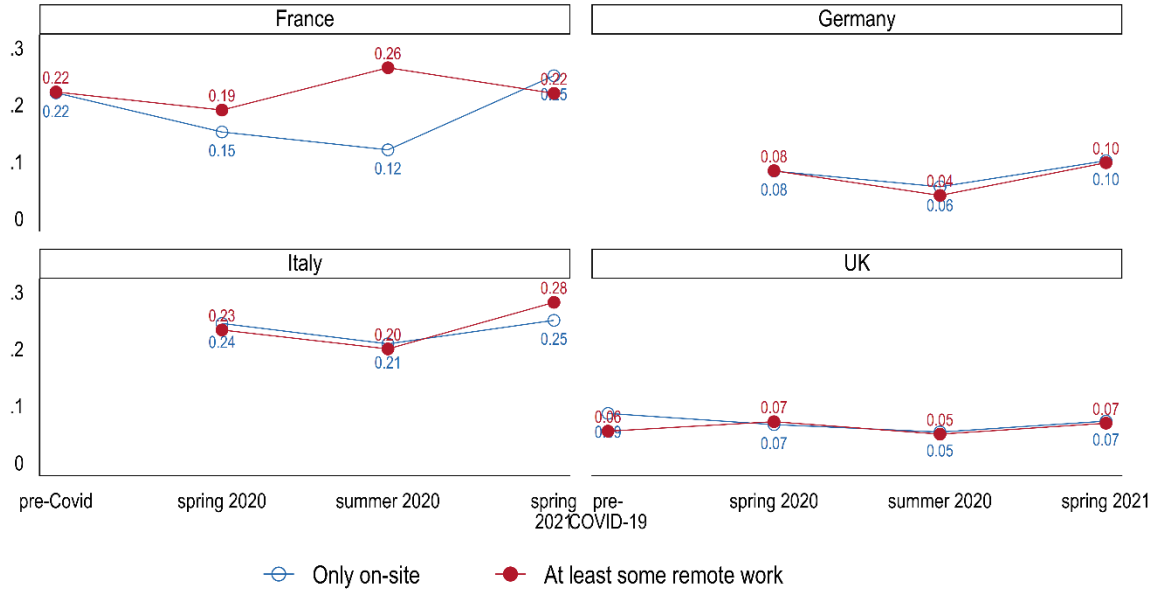
Note: Question wording and response scales varied between countries, so items were dichotomised.
Controls: age, sex, education, having children.

Figure 32 shows the share of high values of depressive feelings, by place of work.

For **Germany**, **Italy** and the **UK,** a negligible difference was noted in the proportion of workers reporting high levels of depression by place of work. In **France**, however, the proportion of workers reporting

high values of depressive feelings was significantly higher among those working on-site than among those working remotely (-10 p.p.) prior to the pandemic. This gap then decreased over time.

Figure 33 Distribution of loneliness, by country, point in time and place of work (proportion of respondents with high frequency of feelings of loneliness)



Note: Question wording and response scales varied between countries, so items were dichotomised.
Controls: age, sex, education, having children.

The results for loneliness were quite similar to those for subjective well-being and depression, with only negligible differences between on-site and remote workers in Italy, Germany and the UK (**Figure 33**). During the pandemic, however, the gap between on-site and remote workers widened significantly in **France** (growing to 14 p.p. in summer 2020).

SUMMARY AND CONCLUSION

COVID-19 and the lockdown measures that were implemented to contain the spread of the virus led to a shock in the labour market in France, Germany, Italy and the UK, with a decrease in the employment rate. Study results confirmed that job retention policies (furlough schemes) helped to avoid mass unemployment during the pandemic. However, some existing social inequalities further increased: young and low-educated workers were most affected by job loss and furlough, while the low-educated also had far fewer opportunities to work remotely. It is clear that not everyone was affected equally by the pandemic. The study also suggests that the effect of furlough on subjective well-being and mental health depended on the length of furlough. The longer the furlough, the more negative consequences for subjective well-being and mental health, with the effects of furlough nearing those of being unemployed during the pandemic. These findings call for policies that can help to reintegrate those on furlough into the labour market. Such policies should specifically target the young and lower-

educated parts of society. One way to facilitate the (re)integration of more vulnerable workers (e.g. young people, lower-educated people) into the labour market would be to support hiring firms and companies, for example through direct incentives or tax breaks.

There was an increase in the share of remote work in all four countries, with the strongest increase in the UK. This might be related to the structure of the UK's economy, which features the highest share of teleworkable jobs. The shift towards remote work appears permanent in the UK and Germany, but more transient in France and Italy, where workers have returned to work on-site more quickly. Remote workers reported slightly higher levels of subjective well-being, especially in the UK. More importantly, these differences did not change over time, suggesting that continued remote work does not have negative effects on workers' subjective well-being and mental health.

The impact of the COVID-19 pandemic on subjective well-being and mental health was complex, as it did not affect all dimensions (i.e. subjective well-being, depressive feelings, loneliness) in the same way. Overall, there was a drop in subjective well-being and an increase in depressive feelings during the first phase of lockdown, confirming findings reported elsewhere (Chandola et al., 2020; Benzeval et al., 2020; Niedzwiedz et al., 2021). The advantage of the surveys used in this research note is that they include data from the later stages of the pandemic, thus showing a recovery in subjective well-being and mental health. The study findings suggest that subjective well-being in Italy and Germany, as well as loneliness and depressive feelings in all countries, had returned to pre-pandemic levels by spring 2021. Similar dynamics – a sudden drop and gradual recovery – were reported in other studies (Chandola et al., 2020; Banks et al., 2021; Murphy and Elliot, 2022), although not all studies found signs of recovery yet (Barslund and Thil, 2022). It may remain too early to fully assess the ramifications of the pandemic for subjective well-being and mental health.

Earlier research painted a rather bleak picture of the overall situation of young people during the pandemic (Konle-Seidl and Picarella, 2021), pointing to some worsening of their mental health (Gagné et al., 2022a; Gagné et al., 2022b). In addition, older people were flagged as a group at very high risk (Lee et al., 2020), with some research findings confirming a worsening of mental health among older people (Bailey et al., 2021). However, this study found few generational differences, with the exception of loneliness, which increased most strongly for the youngest age group throughout the course of the pandemic (i.e. after one year). The divergence in findings between this and other studies may reflect methodological differences, particularly the different indicators used to measure subjective well-being and mental health.

Little difference was found between social groups, and the changes in subjective well-being – particularly mental health – did not show meaningful differences in relation to educational attainment or having children. The pandemic has been reported as having taken a heavy toll on women's mental health and subjective well-being (Almeida et al., 2020; Thibaut and van Wijngaarden-Cremers, 2020), but no such worsening was noted here compared to men, rather a continuation of existing inequalities.

The study recommends continuing to monitor the social and mental health situation of these at-risk groups (low educated, women and the young). In addition, policies and information campaigns could usefully communicate the importance of mental health issues as well as the more frequent focus on economic and labour market situations and physical health.

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