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14 Work interruptions and medium-term labour market outcomes of older workers during the COVID-19 pandemic

Key points

- Experiencing work interruptions in the first wave of the COVID-19 pandemic was associated with a higher probability of entering unemployment or exiting the labour market for older workers, and might jeopardise their chances of returning to work.
 - Women and less educated workers represent more vulnerable categories.
 - Well-designed and well-targeted policy measures are required to protect workers in at-risk occupations, to reduce job losses, and to support the training and/or re-employment of older workers.
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1 Introduction

Recent studies in various fields, from labour economics to psychology, have found an *age bias* in the process for recruiting new employees that is particularly relevant for older women (Neumark et al., 2019). Given the goal of lengthening working lives that is central to the pension system reforms that have been enacted in most European countries in recent years, this age discrimination represents a problem for older individuals and a challenge for welfare systems. Losing a job at an older age may lead to long unemployment spells, and could jeopardise the chances of returning to the labour market for individuals aged 50+.

Researchers are investigating the reasons for such discrimination. It appears that the difficulties older individuals face in finding a new job are partially related to the labour demand side. Indeed, a large share of older workers may lack the skills required by some types of job vacancies, including computer, creative, and training skills (Turek and Henkens, 2020). Moreover, economic downturns often lead to sizeable job losses, which tend to affect specific occupations more strongly (Jaimovich and Siu, 2020), mainly occupations that “age” (Autor and Dorn, 2009). Therefore, older workers in general (and older women in particular) represent more vulnerable categories of workers, especially during and following recessions.

Given the difficult situation created by the ongoing COVID-19 pandemic, it is particularly relevant to understand the implications of the containment measures (ex-

tended lockdowns, restrictions on movements, increased need for informal care of old/fragile individuals and/or grandchildren) for the labour market outcomes of older people in both the short and the medium run. In their analysis of the role of occupational features in relation to the probability and the length of work interruptions during the first wave of the COVID-19 pandemic, Brugiavini et al. (2022) found that individuals working in non-essential jobs that were characterised by a low feasibility of remote work and/or high levels of social interaction faced a higher probability of undergoing work breaks. Moreover, their analysis showed that women and less educated individuals were particularly exposed to the risk of experiencing such events.

Using data from the second SHARE Corona Survey, we aim to investigate the medium-term impact of having experienced work interruptions during the first wave of the pandemic on various labour market outcomes (employment/ unemployment/ retirement/ homemaking) for individuals aged 50 or older. Were individuals who experienced work interruptions in the first wave of the pandemic more likely to become unemployed or to exit the labour market in 2021? Which individual and job characteristics significantly affected individuals' labour market decisions during the pandemic?

2 Data and method

2.1 Data

We take advantage of the data collected through the SHARE Corona survey Waves 1 and 2, linking them with additional information from the regular pre-pandemic waves. We keep in the sample those individuals who took part in both waves of the SHARE Corona survey, and who reported that they were working at the start of the pandemic. We exclude respondents for whom we could not retrieve the ISCO-08 one-digit occupation from pre-pandemic waves; respondents answering “other” or “permanently sick or disabled” to the question about their current employment situation in Wave 2 of the Corona survey; as well as respondents belonging to major 0 (“Armed forces occupations”), which contained few observations. In addition, we drop individuals from Hungary, as the Hungarian sample satisfying our requirements was very small. Our final sample includes 7056 individuals. Note that there are significant differences in the number of observations by country (the sample size by country ranges from 61 observations in the Netherlands to 931 observations in Estonia).

From Wave 1 of the SHARE Corona Survey, we exploit the battery of questions related to work interruptions: namely, questions about whether respondents had experienced work interruptions since the start of the pandemic, and the length of

such spells (i.e., the number of weeks). From Wave 2, we use the information on current employment status, as well as the information on work discontinuities between the first and the second wave of the Corona survey. In addition, we link the most recent information available from the pre-pandemic SHARE waves regarding respondents' occupation, education, and IT skills. Table 1 briefly describes the main features of our sample.

Table 1: Sample description.

Variable	Mean/%
Age	61.5
Women	55.9
Work interruptions between the start of the COVID-19 pandemic and Wave 1	18.43
Weeks of work interruption between the start of the COVID-19 pandemic and Wave 1 (if experienced)	9.01
Work interruptions between Wave 1 and Wave 2	8.92
Weeks of work interruption between Waves 1 and 2 (if experienced)	17.1
<i>Job Title (ISCO-08 1 digit):</i>	
Managers	7.58
Professionals	25.30
Technicians	14.00
Clerical support workers	9.68
Service and sales workers	13.89
Skilled agricultural, forest and fish workers	3.30
Craft and related trades workers	10.76
Plant and machine operators, and assemblers	6.75
Elementary occupations	8.74
<i>Labour Market Outcomes (Wave2):</i>	
Retired	16.9
Employed	80.4
Unemployed	2.00
Homemaker	0.67
N. of observations	7056

Source: SHARE Waves 1 to 8, release 8.0.0; SHARE Corona (W1 & W2), release 8.0.0.

Overall, women represent about 56% of the sample, and the mean age of respondents at the time of the second interview was 61.5. There is, however, variation across countries, with Slovenia and Lithuania having the largest shares of female respondents (64% and 63%, respectively); and Malta, Greece, and Italy having the lowest percentages of female respondents (41%, 47%, and 49%, respectively). The countries

with the youngest samples were Slovakia and Romania (with a mean age of 58 and 59, respectively), while the countries with the oldest samples were Israel and Sweden (with a mean age of 67 and 64, respectively). Of the participants in the second SHARE Corona Survey, about 17% of those who had been working during the pandemic retired before the interview, 80.4% were currently employed, while the rest were unemployed or out of the labour force (homemaker). Finally, it is important to observe that 18.43% of the respondents in our sample experienced work interruptions during the first wave of the pandemic, while 8.92% experienced work breaks between the first and the second SHARE Corona interviews.

In the present study, we analyse the relationship between respondents having experienced work interruptions between the start of the pandemic and the first SHARE Corona survey (June-August 2020) and their working status in Wave 2 of the survey (June-August 2021). In particular, we aim to understand whether and to what extent having experienced work breaks during the first wave of the

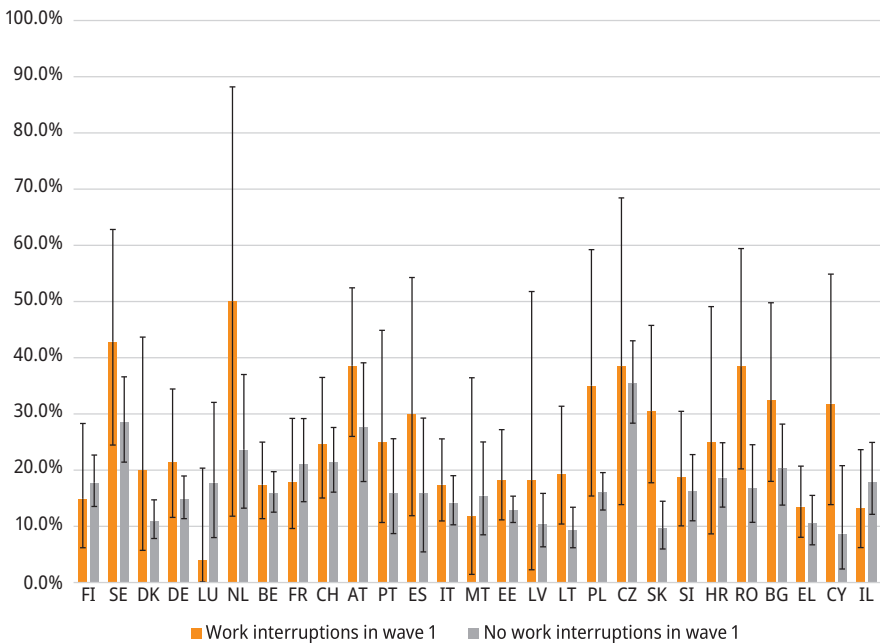


Figure 1a: Transitions from work to retirement between Wave 1 and Wave 2 of the SHARE Corona survey, with and without work interruptions.

Note: Due to small sample sizes the confidence interval is very large in some countries and therefore our descriptive evidence lacks statistical significance.

Source: SHARE Waves 1 to 8, release 8.0.0; SHARE Corona (W1 & W2), release 8.0.0.

pandemic was associated with the probability of retiring, becoming unemployed or exiting the labour force to become a homemaker.

Figures 1a and 1b describe the transitions from work to retirement and from work to unemployment, separately for respondents who did and did not experience work interruptions during the first wave of the pandemic. Overall, the pictures show that having experienced work interruptions was associated with a higher probability of retiring between the first and the second SHARE Corona survey, or being unemployed in the second wave of the SHARE Corona survey.

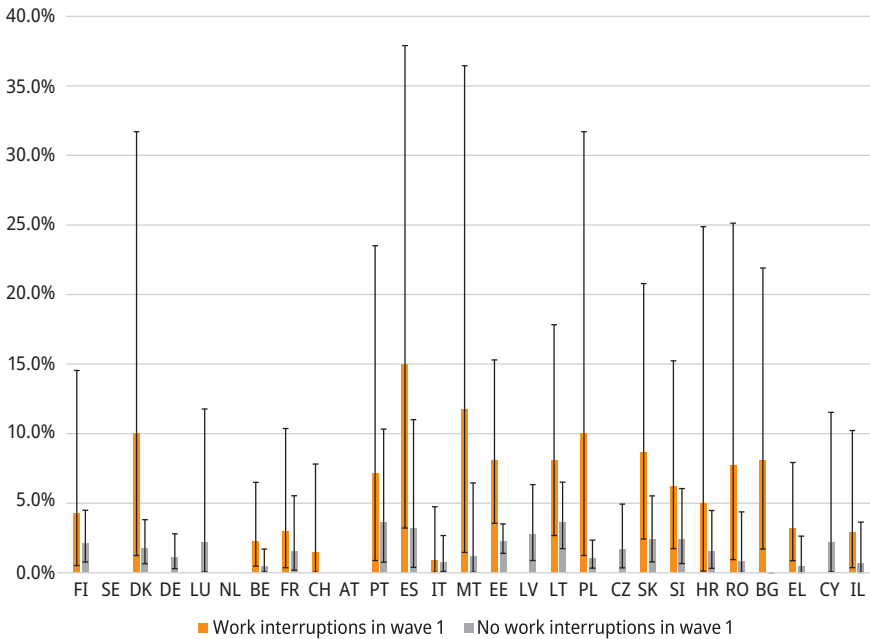


Figure 1b: Transitions from work to unemployment between Wave 1 and Wave 2 of the SHARE Corona survey, with and without work interruptions.

Note: Due to small sample sizes the confidence interval is very large in some countries and therefore our descriptive evidence lacks statistical significance.

Source: SHARE Waves 1 to 8, release 8.0.0; SHARE Corona (W1 & W2), release 8.0.0.

Figures 2a and 2b show the flows from work to retirement and unemployment for respondents who had and those who had not experienced work interruptions, by occupation major. It is worth noting that in all of the majors considered, the share of individuals who were unemployed during Wave 2 of the SHARE Corona survey was significantly larger among the respondents who had undergone work interruptions in Wave 1 of the pandemic. Such interruptions seemed to be particularly rele-

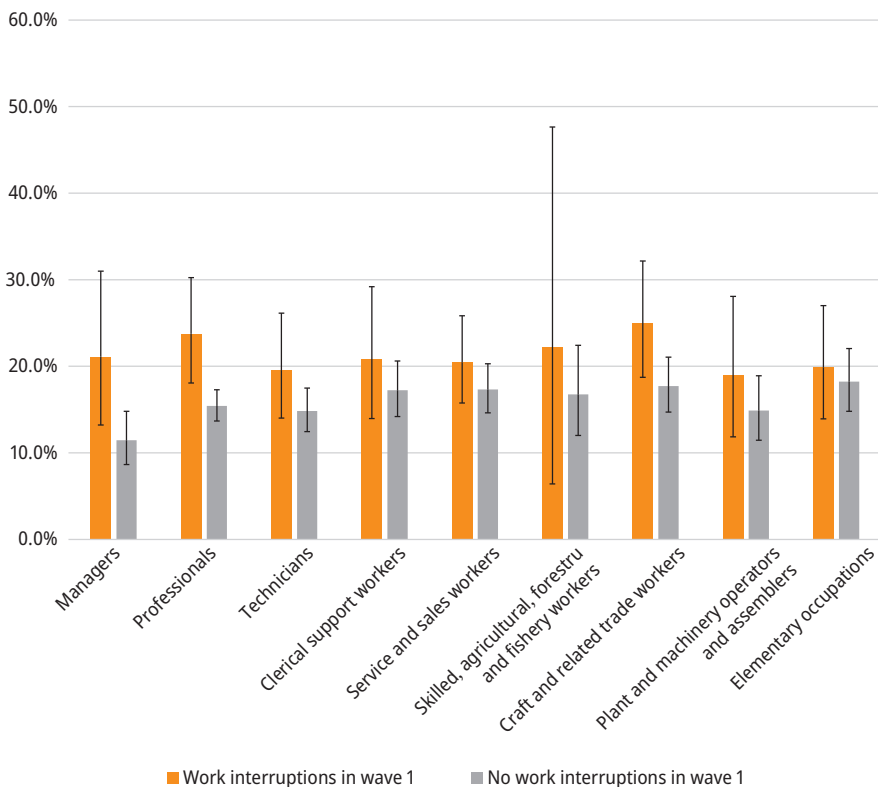


Figure 2a: Transitions from work to retirement between Wave 1 and Wave 2 of the SHARE Corona survey, with and without work interruptions, by occupation major.

Note: Due to small sample sizes the confidence interval is very large in some occupation majors and therefore our descriptive evidence lacks statistical significance.

Source: SHARE Waves 1 to 8, release 8.0.0; SHARE Corona (W1 & W2), release 8.0.0.

vant for respondents in certain middle-skilled blue-collar occupations, including “skilled agricultural, forestry and fishery workers” (major 6) and “craft and related trade workers” (major 7).

When we compare the employment situation of people who experienced work suspensions during the first wave of the pandemic with that of people who did not, we observe that the share of respondents out of the labour market or unemployed in Wave 2 was slightly larger among those who underwent work breaks. Moreover, while the data show a similar picture for both genders in case of work continuity, they also document some differences between men and women who experienced work discontinuities. In particular, they show that among the respondents who had experienced work interruptions, larger percentages of men retired, while larger

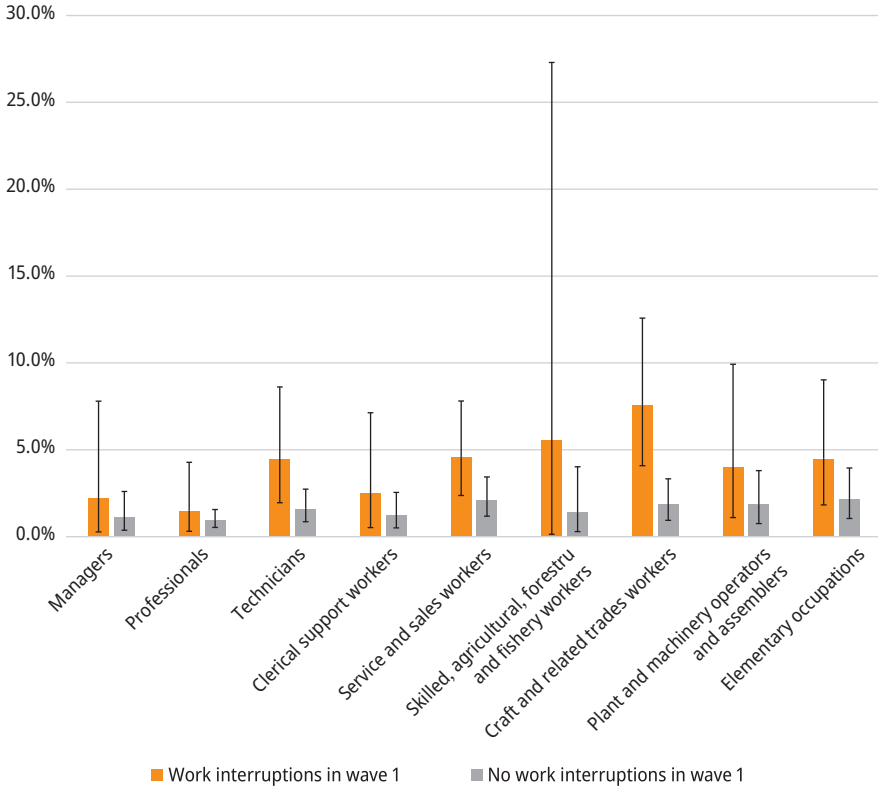


Figure 2b: Transitions from work to unemployment with and without work interruptions, by occupation major.

Note: Due to small sample sizes the confidence interval is very large in some occupation majors and therefore our descriptive evidence lacks statistical significance.

Source: SHARE Waves 1 to 8, release 8.0.0; SHARE Corona (W1 & W2), release 8.0.0.

shares of women became unemployed or homemakers. This evidence raises concerns, as these two last categories generally have less social protection (with some variation from country to country, depending on the welfare system), which suggests that women may represent a more vulnerable category.

2.2 Method

In order to refine our analysis, we perform two sets of regressions. First, we estimate the correlation between work interruptions in the first wave of the pandemic and the employment situation in the second wave of the SHARE Corona

survey by means of a multinomial logit. For this specification, we refer to work breaks up to the first Corona survey, because this information is not available for the period between the first and the second waves for either the retirees or the homemakers.

Second, we analyse the probability of ending up in unemployment by also taking advantage of the available information on the presence and the length of work interruptions between the first and the second Corona survey interview. To do this, we run two additional logit regressions.

The empirical specification for the first part of the analysis is the following:

$$\Pr(Y_i = j) = \frac{\exp(\alpha_j + \beta_j w_i + X'_i \gamma_j)}{\sum_{k=1}^J \exp(\alpha_k + \beta_k w_i + X'_i \gamma_k)}$$

The key dependent variable is a categorical variable representing the working situation of the respondent (retired/ employed/ unemployed/ homemaker), with the baseline comparison group being employed individuals. The main explanatory variable, w_i , is, alternatively, (i) a binary indicator that takes the value of one if the individual experienced work breaks during the first wave of the pandemic, and the value of zero otherwise; (ii) a categorical variable that takes the value of zero if the respondent experienced no interruptions, the value of one if the respondent experienced work interruptions lasting one to eight weeks, and the value of two if the respondent experienced work breaks longer than eight weeks. The threshold of eight weeks represents the median number of weeks of work interruptions for those who underwent such episodes before the first wave of the SHARE Corona survey. This threshold changes to eighteen in the logit specification, where we consider the experience/ length of work discontinuities throughout the whole period, from the start of the pandemic to the second Corona survey interview.

Additional controls include gender, the nine ISCO-08 occupation majors (one-digit categories), the self-reported pre-pandemic IT skills, five-year age groups, whether the individuals used to work in the public or private sector or were self-employed, and four country clusters based on their geographical location (Nordic, Western, Southern, East European countries and, separately, Israel).

3 Results

Table 2 reports the results of our multinomial logit specifications for three working statuses: retirement, unemployment, and homemaker, while employment represents the reference outcome. At first glance, it is clear that there is a positive

Table 2: Multinomial logit estimations results.

Variable	Retired		Unemployed		Homemaker		Retired		Unemployed		Homemaker	
	Relative risk ratios	Standard error	Relative risk ratios	Standard error	Relative risk ratios	Standard error	Relative risk ratios	Standard error	Relative risk ratios	Standard error	Relative risk ratios	Standard error
Work interruptions in w1	1.520***	(0.148)	3.498***	(0.694)	2.233*	(0.792)						
Weeks work interruption:												
No interruptions (0 weeks)												ref
Between 1–8 weeks							1.214	(0.155)	2.789***	(0.689)	1.447	(0.705)
More than 8 weeks							2.137***	(0.284)	4.308***	(1.097)	3.602**	(1.486)
Female	1.014	(0.086)	1.164	(0.236)	10.529***	(5.910)	1.008	(0.086)	1.174	(0.240)	10.369***	(5.825)
IT skills:												
Never used computer												ref
Poor or fair	0.754	(0.112)	0.637	(0.185)	0.909	(0.503)	0.774	(0.116)	0.63	(0.184)	0.925	(0.514)

(continued)

Table 2 (continued)

Variable	Retired			Unemployed			Homemaker			Retired			Unemployed			Homemaker		
	Relative risk ratios	Standard error		Relative risk ratios	Standard error		Relative risk ratios	Standard error		Relative risk ratios	Standard error		Relative risk ratios	Standard error		Relative risk ratios	Standard error	
<i>Good</i>	0.983	(0.152)	0.368**	(0.121)	0.896	(0.558)	0.993	(0.154)	0.368**	(0.122)	0.903	(0.565)						
<i>Very good-excellent</i>	0.761	(0.125)	0.445*	(0.156)	1.106	(0.708)	0.773	(0.128)	0.445*	(0.156)	1.121	(0.723)						
Type of occupation:																		
<i>Private employee</i>			ref						ref									
<i>Public employee</i>	1.185	(0.107)	0.914	(0.197)	0.270*	(0.142)	1.186	(0.107)	0.881	(0.191)	0.278*	(0.146)						
<i>Self-employed</i>	0.745*	(0.091)	0.572	(0.188)	1.465	(0.607)	0.746*	(0.090)	0.573	(0.189)	1.457	(0.612)						
Age groups	√		√		√		√		√		√							
ISCO08 majors (1 digit)	√		√		√		√		√		√							
Country cluster	√		√		√		√		√		√							
Constant	0.002***	(0.002)	0.013***	(0.012)	0	(0.000)	0.002***	(0.002)	0.014***	(0.013)	0	(0.000)						

Significance: *** = 1%; ** = 5%; * = 10%

Source: SHARE Waves 1 to 8, release 8.0.0; SHARE Corona (W1 & W2), release 8.0.0.

relationship between having undergone work interruptions during the first wave of the pandemic and the risk of falling into each of the three abovementioned categories, relative to being employed.

More specifically, having experienced work discontinuities is associated with an increase by a factor of 1.52 in the risk of being retired, by 3.49 in the risk of being unemployed, and by 2.23 in the risk of becoming a homemaker, relative to being employed, at the time of the second Corona survey. Furthermore, our analysis shows that also the length of such episodes was significantly and positively related to the probability of not being employed. The respondents who experienced work gaps of one to eight weeks had a relative risk of ending up unemployed that was 2.78 times higher than that of the respondents who had worked continuously since the start of the pandemic. Finally, individuals with work interruptions longer than eight weeks were significantly more likely to be retired, unemployed, or a homemaker at the time of the second interview (the relative risk was, respectively, 2.14, 4.3, and 3.6 times higher).

As for the other variables, we believe that gender and IT skills deserve particular attention. Being a woman was associated with a significantly higher probability of becoming a homemaker with respect to men. Indeed, for females, the risk of becoming a homemaker relative to being employed at the time of the second interview increased by a factor of about 10.36 compared to that for males.

IT capabilities proved to be an important determinant of unemployment status, while there was no significant relationship between IT capabilities and moving to retirement or becoming a homemaker. Having good or very good computer skills decreased the relative risk of becoming unemployed by a factor of 0.37 and 0.44, respectively.

As a robustness check, we run two additional logit regressions in which we estimate the probability of becoming unemployed by complementing the information on work discontinuities with the work interruptions between the two waves of the SHARE Corona survey. This provides us with a more complete picture of the respondents' working experiences since the start of the pandemic. The results, reported in Table 3, support all of our main findings from the multinomial logit, but the magnitude of the effects related to the experience and the length of work interruptions are considerably larger.

Table 3: Logit estimation results.

Variables	Logit (1)		Logit (2)	
	Odds ratio	Standard error	Odds ratio	Standard error
Work interruptions	14.163***	(3.086)		
Weeks work interruption:				
<i>No interruptions (0 weeks)</i>				
<i>Between 1–18 weeks</i>			8.870***	(2.281)
<i>More than 18 weeks</i>			44.410***	(11.749)
Female	1.126	(0.239)	1.182	(0.266)
IT skills:				
<i>Never used computer</i>	ref			
<i>Poor or fair</i>	0.565	(0.174)	0.541	(0.179)
<i>Good</i>	0.308***	(0.107)	0.287***	(0.108)
<i>Very good-excellent</i>	0.382*	(0.142)	0.402*	(0.159)
Type of occupation:				
<i>Private employee</i>	ref			
<i>Public employee</i>	1.159	(0.260)	1.302	(0.311)
<i>Self-employed</i>	0.511*	(0.169)	0.439*	(0.154)
Age groups	✓		✓	
ISCO-08 majors (1 digit)	✓		✓	
Country cluster	✓		✓	
Constant	0.007***	(0.006)	0.006***	(0.006)

Significance: *** = 1%; * = 5%; * = 10%

Source: SHARE Waves 1 to 8, release 8.0.0; SHARE Corona (W1 & W2), release 8.0.0.

4 Conclusions

We study the impact of experiencing work interruptions in the first wave of the COVID-19 pandemic on the employment situation of older people in the second wave of the SHARE Corona survey (June-August 2021). We focus on individuals who reported working at the start of the pandemic, and who participated in both waves of the Corona survey. The analysis shows that discontinuities in the respondents' working activity are associated with a significant increase in their probability of being retired, unemployed, or a homemaker at a later point in time.

In addition, our results confirm and support the argument that women and less educated people represent more vulnerable categories. In particular, individuals with poor or no computer skills are found to be more likely to end up in unem-

ployment, while women are shown to be more likely to become homemakers. Given the evidence from numerous studies that there is age discrimination in the recruitment process, our results raise concerns about the working lives of older workers. Indeed, these individuals might exit the labour market completely before they are eligible for retirement, and thus enter long-term unemployment while being excluded from other welfare support schemes (for example, as homemakers). Therefore, well-designed and well-targeted policy measures are needed to protect workers in at-risk occupations, reduce job losses, and support the training and/or re-employment of older workers.

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