

CENTER for RETIREMENT RESEARCH at BOSTON COLLEGE

### HOW HAS COVID-19 AFFECTED THE LABOR FORCE PARTICIPATION OF OLDER WORKERS?

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#### Abstract

This paper uses the monthly *Current Population Survey* to study older workers' transitions out of employment and into retirement before and during the pandemic. It examines whether the effect of the pandemic was particularly acute for workers with certain demographic characteristics and working conditions, and for those who faced different local public health and economic conditions.

The paper found that:

- Among workers ages 55 and older, the likelihood of leaving work over the course of a year rose by 7.6 percentage points, a 50-percent increase over the pre-pandemic rate.
- Women, those without a college degree, Asian-Americans, and those in occupations less amenable to remote work saw disproportionate impacts.
- In contrast, the likelihood of retiring increased by only 1 percentage point, with retirements concentrated among those over age 70.
- Accordingly, workers were not more likely to claim Old-Age and Survivors Insurance benefits.

The policy implications depend on whether those who left jobs during the pandemic return to work:

- If older workers are not able to find new jobs, policymakers could consider options to boost retirement resources, such as updating Social Security's actuarial penalty for early claiming.
- If they are able to re-enter the workforce, future research could explore whether the new jobs offer wages and benefits that are comparable to workers' pre-pandemic employment.

#### Introduction

Working longer helps people secure a comfortable retirement, particularly given the rise in Social Security's full retirement age (Bronschtein et al. 2019; Munnell and Sass 2008). Before the COVID-19 crisis, many older workers had internalized this message, and both retirement and Social Security claiming ages were steadily rising (Hou et al. 2020; Chen and Munnell 2021). However, the COVID-19 pandemic may have interrupted this trend.

That some older workers left their jobs during a pandemic and global recession is to be expected. Still, questions remain over whether these impacts are likely to dissipate as the pandemic recedes and the economy recovers – or whether a more permanent exodus from the labor force is to be anticipated in the coming years. To provide a benchmark for answering these questions, the analysis uses the panel structure of the monthly *Current Population Survey* (CPS) to construct annual hazard rates of leaving work and of retirement for individuals ages 55 and over, comparing individuals observed during the pandemic (March-December 2020) to those observed during a similar period before the pandemic.

The paper reaches three main conclusions. First, the pandemic did indeed push many older workers out of their jobs, but the impact on employment was unevenly distributed. Women were more likely to leave than men; those with less than a college degree were more likely to leave than the more highly educated; Asian-Americans were more likely to leave than other racial groups; and those whose occupation did not lend itself to telework were more likely to leave than those who could reasonably work remotely. Consequently, some groups did not experience a significant disruption to employment during the pandemic, while others left work in large numbers.

Second, the pandemic induced a large discrepancy between leaving work and retiring. The hazard of leaving work was nearly 8 percentage points higher during the pandemic than in the preceding year (a 50-percent increase over the pre-pandemic baseline); whereas the hazard of self-identified retirement increased by only 1 percentage point (an 8-percent increase). The increased likelihood of retirement was not significantly different across demographic groups, except those over age 70 who were more likely to retire. Finally, as a consequence of the muted effect of the pandemic on retirement and its concentration in the over-70 group, the pandemic has thus far had little impact on Social Security Old-Age and Survivors Insurance (OASI) claiming.

The rest of the paper proceeds as follows. The next section describes the current state of research on the labor-market impacts of COVID-19, as well as lessons from previous recessions. Section 3 details the data and methods of the analysis. Section 4 presents results, and the final section concludes that the pandemic pushed many older adults out of work, but had little impact on self-identified retirement and OASI claiming, which suggests that many want to return to work when restrictions ease and vaccination makes it safe to do so.

#### **Literature Review**

A rapidly growing literature examines how the COVID-19 pandemic affected the employment of different segments of the U.S. labor market. Naturally, researchers' understanding of the pandemic is evolving in real-time as the pandemic itself evolves and new data become available.

At present, only a handful of studies examine the labor force participation of older workers. All of these studies analyze the same data – the monthly *Current Population Survey* (CPS) – and find that the pandemic pushed many older workers out of their jobs. Yet, whereas some studies conclude that older workers were not disproportionately affected relative to younger age groups (Munnell and Chen 2021; Sanzenbacher 2021), others conclude the opposite (Bui, Button, and Picciotti 2020; Jacobson, Feder, and Radley 2020). The main difference between these studies is their definition of "older worker;" 55- to 64-year-olds look qualitatively similar to prime-age workers, with any disproportionate job separations occurring among workers ages 65 and older. Intuitively, the oldest workers are not only affected by adverse labor market conditions but are also more susceptible to the virus itself and so may be more likely to reduce their labor supply.

Beyond age, this nascent literature has only begun to explore whether specific factors made some older workers (defined in this paper as ages 55 and over) more likely to leave the labor force. Research on the prime-age workforce suggests that socio-demographic characteristics and job conditions may have played a role. On the demographic side, studies have shown that women suffered greater employment losses than men, and that Hispanic and Asian-American workers were more likely to leave employment than white workers.<sup>1</sup> Regarding

<sup>&</sup>lt;sup>1</sup> For examples of research on the "she-cession," see Alon et al. (2020); Albanesi and Kim (2021); and Fabrizio, Gomes, and Tavares (2021). For examples by education and race, see Daly, Buckman, and Seitelman (2020) and

job conditions, workers without a college degree fared worse than the college educated, and the ability to work remotely from home has emerged as a great differentiator, due to businesscapacity restrictions and personal fears of virus exposure (Angelucci et al. 2020; Béland, Brodeur, and Wright 2020; Brynjolfsson et al. 2021; and Borjas and Cassidy 2020).<sup>2</sup> Additionally, evidence from consumer location data suggest that local economic activity slowed more in high-density areas due to peoples' fear of catching the virus (Goolsbee and Syverson 2021).<sup>3</sup> A recent study by Goda et al. (2021) documents similar patterns among older workers.

To what extent displaced older workers will ultimately end up re-entering the labor force also remains unanswered. A few studies note that self-reported retirement has increased during the pandemic, but not at the same pace as job loss (Board of Governors of the Federal Reserve System 2021; Coibion, Gorodnichenko, and Weber 2020; Kaplan et al. 2021; Kolko 2021; and Sanzenbacher 2021). Interestingly, the Social Security OASI program did not see a concurrent increase in claims in the spring and summer of 2020 (Glenn 2020; and Goda et al. 2021). The reasons for this discrepancy between workforce exit and OASI claiming have not yet been pinned down, but could include the closure of SSA field offices, federal policies such as extended unemployment benefits and stimulus checks, or a reluctance on the part of older workers to consider themselves permanently out of the labor force.<sup>4</sup>

While older workers also left the labor force during the Great Recession, research from that period is unlikely to shed much light on current trends. In 2008, many older workers wanted to delay retirement to let their financial assets recover from the stock market crash, but found it difficult to work longer due to high unemployment.<sup>5</sup> Ultimately, the lack of suitable jobs outweighed the desire to work.<sup>6</sup> In the current recession, workers with retirement accounts have

 $^{2}$  The transition to remote work might also partly explain the age gradient in job separations, since employers often perceive older workers as less adept with technology (Button 2019 and Munnell and Wettstein 2020).

<sup>3</sup> Of course, individual workers may fall into several of these categories. For example, women were particularly hard-hit by COVID-19 because they worked in vulnerable industries, and because they spent more time looking after children; similarly, workers with college degrees are also more likely to be in jobs amenable to remote work. <sup>4</sup> In practice, claiming can largely be reversed. Benefits can be explicitly suspended up to age 70, and benefits are implicitly suspended through the earnings test up to the full retirement age when earnings exceed a relatively low threshold. However, suspension of benefits is rare (Sass, Sun, and Webb 2013), and the earnings test seems widely misunderstood to be a tax on benefits, rather than a delay in benefits accompanied by an actuarial adjustment (see, for example, Gelber et al. 2018).

<sup>5</sup> Coe and Haverstick (2010); Goda, Shoven, and Slavov (2011); and Helman, Copeland, and VanDerhei (2011).

Lee, Park, and Shin (2021). Interestingly, the latter two studies find that Black workers were not disproportionately more likely to leave their jobs during the initial phases of the pandemic, relative to white workers.

<sup>&</sup>lt;sup>6</sup> Bosworth and Burtless (2010); Coile and Levine (2011); Gustman and Steinmeier (2012); Johnson and Haaga (2012); Munnell and Rutledge (2013); and Rutledge and Coe (2012).

seen their balances increase, and the labor market is rebounding as the widespread distribution of vaccines allows for a resumption of economic activity.<sup>7</sup>

Given how much remains unknown about older workers and COVID-19, this paper has three goals. First, it documents the factors that made older workers more or less susceptible to pandemic job separations. Second, it determines whether the workers who were pushed out of the labor force are also more likely to self-report retirement. And third, it reconciles these patterns with recent trends in Social Security retirement claiming.

#### **Data and Methodology**

Most of the analysis in this study uses the *Current Population Survey* (CPS), a monthly survey of a large sample of U.S. households that asks questions about labor force status and other economic outcomes; the CPS is the source of the Bureau of Labor Statistics' monthly jobs report that includes the official national unemployment rate. Respondents are in the monthly CPS sample over 2 periods exactly one year apart: they are surveyed in each of 4 consecutive months, then are out of the sample for 8 months, but re-enter the sample the next calendar year during the same 4 calendar months as the previous year. For example, a respondent may be surveyed by the CPS in March-June 2019, and then again in March-June of 2020.

Though the CPS is designed as a cross-sectional survey, researchers have constructed techniques to connect the interviews for any one respondent, allowing for longitudinal analysis.<sup>8</sup> The focus of this study's longitudinal analysis is on individuals ages 55 or older, and how their labor force status changes between their 4<sup>th</sup> month in the survey and their last month in the survey, which occurs one year later.<sup>9</sup> Specifically, we compare the experience of two groups of workers: the "pre-pandemic group" has both their initial and final interviews before April 1,

<sup>&</sup>lt;sup>7</sup> For a discussion of the pandemic's effect on retirement assets, see Munnell and Chen (2021).

<sup>&</sup>lt;sup>8</sup> An individual's 4<sup>th</sup> and 16<sup>th</sup> months in the survey are called "outgoing" months because its respondents will either not be interviewed again for eight months (if in the 4<sup>th</sup> month) or will exit the sample entirely (if in the 16<sup>th</sup> month). Survey respondents in an outgoing month are often referred to as the "outgoing rotation group" (ORG). Careful merging of the CPS-ORG data across years involves two steps: 1) use of CPS-provided identifiers to conduct an initial merge between the 4<sup>th</sup> and 16<sup>th</sup> month's interviews; and 2) adjustment of the initial merge by removing observations that the CPS likely mis-identifies as the same individual, given a change in the individual's reported gender, race, or (adjusted) age. Madrian and Lefgren (1999) provide a detailed description of this procedure. It is worth noting that even if the CPS identifiers were recorded perfectly, not all individuals could be followed from the 4<sup>th</sup> to 16<sup>th</sup> months of the survey due to non-response, mortality, and migration away from the sampled address. <sup>9</sup> This analysis focuses on the 4<sup>th</sup> and 16<sup>th</sup> months to capture two points that are exactly one year apart, but other intervals could also be of interest: for example, the change between the 1<sup>st</sup> and 4<sup>th</sup> months (or 13<sup>th</sup> and 16<sup>th</sup> months).

2020, while the "post-pandemic group" has their initial interview before April 1, 2020 and their final interview after that date.<sup>10</sup> We assume that the post-pandemic group would have behaved similarly to the pre-pandemic group had COVID-19 not occurred, and broadly attribute any differences in behavior to the pandemic.

For each group of workers, we conceptualize labor-force transitions in two ways. First, we examine the rate of employment exit by focusing on a sample of people who are working at the time of the 4<sup>th</sup> month interview, and create an indicator variable equal to one if the respondent switches to not working in the final month (equal to zero if they are still working).<sup>11</sup> We then shift our focus to retirement by taking a sample of people who are not retired in the 4<sup>th</sup> month and generating a new indicator equal to one if the respondent reports not being in the labor force in the final month because they are retired (equal to zero otherwise).<sup>12</sup> The samples used in these analyses are large: among those with a valid match between the 4<sup>th</sup> and 16<sup>th</sup> months in the sample, nearly 36,000 CPS respondents were working in the initial month.

As one of the first analyses of how the COVID-19 pandemic has influenced the labor supply of older individuals, this study addresses a broad question: who was most likely to leave employment and retire as the result of the pandemic? Hence, the analysis focuses on several circumstances under which individuals may have been induced to retire.

*Age and Health.* The first circumstance reflects individual capacity and comfort with continued work. Age (as well as that of the spouse) is expected to push workers out of the labor force for two main reasons: first, because older individuals especially were told to maintain strict social distancing; and second, because workers who are eligible to claim Social Security may not

<sup>&</sup>lt;sup>10</sup> The pre-pandemic group's initial interviews were between January 2018 and March 2019; their follow-up interviews were between January 2019 and March 2020. The post-pandemic group's initial interviews were between April 2019 and December 2019, with follow-up interviews during the pandemic period: April-December 2020. The sample window stops in December 2020 to avoid the confounding effect of vaccination efforts.
<sup>11</sup> One concern with the data linkage across years is that the CPS does not follow households who move away from their initial address (Neumark and Kawaguchi 2004). In theory, the pandemic could make that limitation more impactful, given that some (mostly higher-income) individuals may have moved away from cities with high infection rates. To account for differential attrition, the analysis is also estimated using, in turn, two extreme assumptions: 1) that any individuals who left the sample would have left employment; and 2) that any individuals who left the sample would have stayed in employment. The results (available upon request) are nearly identical in sign, significance, and magnitude.

<sup>&</sup>lt;sup>12</sup> Retirement is defined as being out of the labor force and self-reporting retirement. Hence, not retired is defined as being either in or out of the labor force, but not self-reporting retirement. The results are not sensitive to the exact definition of retirement.

need to continue working. Due to data limitations, health status in this analysis reflects severe limitations of activity.<sup>13</sup> Future research could focus on medical conditions related to COVID-19, such as respiratory issues, obesity, and diabetes.<sup>14</sup>

*Demographics.* The second circumstance is the unequal effect of the pandemic by demographic group. Prior research has established that the pandemic and accompanying recession have had a disproportionate impact on women and persons of color. Therefore, the analysis examines changes in labor force status by gender, race, and Hispanic origin.

*Working Conditions.* The third circumstance is working conditions during the pandemic. One specific variable of interest is the worker's ability to work remotely or "telework." The analysis proxies for this ability by using the measure designed by Dingel and Neiman (2020) to create an indicator variable for whether the respondent is in an occupation (at their initial interview) where work can be done remotely. A greater ability to work remotely should be associated with the respondent being less likely to leave work or retire. More generally, bettereducated workers may have advantages beyond the flexibility to work remotely that may have helped them avoid early retirement, so education is also included in this set of factors. In addition, the analysis accounts for whether the individual is self-employed.<sup>15</sup>

*Local Conditions*. The fourth and final circumstance is the severity of both the pandemic itself and economic conditions around the associated recession. To capture the risk of the pandemic, the analysis accounts for the peak monthly share of the population (per thousand) who died from COVID-19 in the respondent's county, as well as the county's population density (due to greater perceived risk of infection in large cities).<sup>16</sup> To capture national economic conditions, the analysis includes calendar month fixed effects ( $\tau_t$ ). To capture state economic conditions,

<sup>&</sup>lt;sup>13</sup> Specifically, someone is considered to have a health issue if they reported difficulty with hearing, vision, remembering, physical activity, mobility, or personal care.

<sup>&</sup>lt;sup>14</sup> More information on chronic health conditions is available in the CPS ASEC, but future work will have to address this issue using more detailed data from surveys such as the *Health and Retirement Study*.

<sup>&</sup>lt;sup>15</sup> The effect of the pandemic on the self-employed could be greater or smaller than on employees. On one hand, the self-employed may have greater autonomy to decide where and when they are capable of working under quarantine conditions. On the other hand, the self-employed may own businesses that were more likely to have to shut down due to quarantine or slack conditions.

<sup>&</sup>lt;sup>16</sup> For each individual in the post-pandemic period, peak deaths are measured during the one-year interval between the person's first and second interviews.

the analysis includes state fixed effects ( $\varsigma_s$ ) and state-month fixed effects ( $\varsigma_s \tau_t$ ).<sup>17</sup> Lastly, to capture local labor market conditions, the analysis accounts for the lowest employment rate seen in the respondent's county in the 12 months between interviews. This analysis focuses on the county *employment* rate rather than the unemployment rate to account for the fact that workers whose businesses closed may have left the labor force.

The analysis estimates a linear regression model where the dependent variable is, in turn, an indicator for leaving employment or for reporting being retired. This regression model takes the form:

$$Y_{i,t+12} = \beta_0 + \beta_1 P_{t+12} + \gamma X_{i,t} + \theta (X_{i,t} * P_{t+12}) + \varsigma_s + \tau_t + \varsigma_s \tau_t + \varepsilon_{i,t+12}$$
(1)

where  $P_{t+12}$  is an indicator equal to one if the respondent is in the post-pandemic group. Hence, this indicator denotes the respondents whose labor market decisions were affected by the pandemic.

The vector of coefficients  $\gamma X_{i,t}$  reflects how the four sets of circumstances described above were associated with labor-force exit before the pandemic. These variables are measured as of the respondents' first interview (time t). The circumstances are then interacted with the pandemic indicator ( $P_{t+12}$ ) to estimate how the relationships changed during the pandemic. A positive coefficient on an un-interacted variable indicates that the factor is positively associated with employment exit or retirement under normal circumstances. A positive interaction effect indicates that the factor is associated with *greater* exit or retirement *during the pandemic*, *relative* to normal circumstances. Hence, these interaction effects are the main focus of this study.

A key limitation of the monthly CPS is that it does not ask about Social Security benefit receipt. In order to relate our analyses of employment and retirement to recent trends in claiming, we supplement the CPS with an examination of administrative data from the Social Security Administration on monthly applications for OASI benefits.<sup>18</sup> The monthly claiming rate is calculated as the number of applications relative to the 2019 population ages 55 or over.<sup>19</sup>

<sup>&</sup>lt;sup>17</sup> The state fixed effects account for differences in labor markets that do not vary over time, while the state-month fixed effects reflect the changing conditions in the respondent's state.

<sup>&</sup>lt;sup>18</sup> These data are available at: https://www.ssa.gov/open/data/retirement-insurance-online-apps-2012-onward.html <sup>19</sup> Population data for 2020 are not yet available at the time of writing. The age range chosen for the denominator only affects the level of the claiming rate in all months, not the trend.

If the regression results show significant employment transitions but no change in selfreported retirement or Social Security claiming, older individuals may be out of work, but not think of themselves as retired. Older individuals who plan to return to work after vaccination and the easing of COVID-19 restrictions may decide not to claim Social Security benefits, which could feel like a more permanent retirement decision. Although beneficiaries can opt to suspend benefits after finding a new job, they may not be aware of that option, and they may misunderstand the Social Security earnings test as restricting their ability to return to work.

#### Results

This section first discusses how the probability of moving out of employment has changed overall, from the pre-pandemic to the post-pandemic periods, and then presents regression results that indicate which groups of older workers were more likely to leave their jobs in the past year. It then discusses how retirement patterns have changed, with similar attention to the individuals most likely to retire during the COVID-19 crisis. Lastly, it assesses preliminary evidence on Social Security claiming.

#### Leaving Employment

Figure 1 examines the share of older individuals who were working when first sampled by the CPS, but no longer working 12 months later; the x-axis labels the month of the last interview. Before the COVID-19 outbreak (i.e., for people for whom the last interview took place between January 2019 through March 2020), about 15 percent of older individuals would leave employment within a year. The separation hazard increased sharply in April 2020 to 31.5 percent. In subsequent months, a lower percentage of older people left work – even by May 2020, the hazard fell back to 25.9 percent – but it remained near or above 20 percent throughout the rest of calendar year 2020. Overall, the share of people ages 55 or older who left the workforce during the pandemic increased by a statistically significant 7.6 percentage points, an increase of 50 percent over the pre-pandemic hazard rate.

To set the stage for the regression results, Figure 2 tabulates the raw data to show which groups were more likely to leave employment before the pandemic, and which groups saw the largest increases (without controlling for other characteristics). The results are consistent with previous findings in the literature. Pre-COVID, the probability of leaving employment increased

monotonically with age: 9 percent left employment at ages 55-59, but 26 percent left at ages 70 or older. Post-COVID, most of the age groups saw a 7-percentage-point increase in the share of individuals leaving work. The effect of COVID was slightly larger for women: 8 percentage points, compared to 7 percentage points for men. Most racial groups saw increases of about 7 percentage points, but the increase among Asian-Americans was about 12 percentage points.<sup>20</sup> College graduates saw only a 6-percentage-point increase, while the hazard of leaving employment increased by 11 percentage points for those with only a high school diploma.<sup>21</sup> Not surprisingly, a large difference occurs between those who can and cannot work remotely. Among the 45 percent of workers capable of telework, the share who left their jobs increased by only 4 percentage points during the pandemic, compared to 10 percentage points for those whose occupations were not amenable to remote work.

Although some of these differential changes are large, older workers are often members of multiple groups, so it is important to disentangle which characteristics are most associated with leaving employment.<sup>22</sup> We therefore turn to the regression results. For expositional clarity, the main body of the paper focuses on the interaction coefficients in Table 1, while the full regression results are available in Appendix Table A2.<sup>23</sup> Any large and statistically significant interaction effect indicates that the group in question saw a change in their hazard of leaving employment during the pandemic.

As suggested by some previous studies, age was not a major predictor of leaving employment; workers ages 60-64 (as well as 65-69) were not more likely to leave their jobs than

<sup>&</sup>lt;sup>20</sup> These results find no difference between Hispanics and non-Hispanics in other racial groups. Lee, Park, and Shin (2021) find that prime-age Hispanic workers were more likely to leave employment than white workers. However, younger Hispanic workers are likely to experience very different employment conditions than the older workers considered in this study.

<sup>&</sup>lt;sup>21</sup> Earnings are not included in the regression analysis due to high collinearity with education and telework, but the raw results indicate a substantial difference in the hazard out of employment by earnings. The bottom half of the earnings distribution saw their probability of leaving employment increase by 13 percentage points, compared to only a 3-percentage-point increase for the top half.

<sup>&</sup>lt;sup>22</sup> Appendix Table A1 shows summary statistics for the independent variables, separately for the pre- and postpandemic samples.

<sup>&</sup>lt;sup>23</sup> Note that the main (pre-pandemic) effects in Table A2 are largely as expected: the likelihood of leaving employment increases with age, and the spouse's age, and is higher for women, Black workers, and those with health problems. Interestingly, even before the pandemic, those whose jobs allowed them to telework were less likely to leave employment; this finding could be due to unobservable differences between telework and non-telework jobs (for example, autonomy or non-physicality), or it could indicate that a flexible work environment encourages working longer.

workers ages 55-59 (Table 1, first column).<sup>24</sup> Another variable associated with work capacity or comfort with working shows a more surprising result: those with certain health problems were actually about 3 percentage points less likely to leave work. One caveat is that, due to limitations with the monthly CPS questionnaire, the health problems included in this variable are not particularly related to COVID-19 – they represent severe limitations in general, rather than more specific risk factors such as respiratory issues, obesity, or diabetes that put older individuals at greater risk of severe outcomes from coronavirus infection.

Some demographic groups were also more vulnerable to employment exit. Women were 2 percentage points more likely to leave employment, all else equal. Being Asian-American was associated with an increase of nearly 7 percentage points in the hazard out of employment, compared to identifying as white non-Hispanic. Being Black or Hispanic, in contrast, was not associated with greater employment exits (compared to being white) after controlling for other differences.

Employment conditions also seem to be important. College graduates were about 3.5 percentage points less likely to leave employment during the pandemic. That estimate is large and statistically significant even after controlling for the greater ability of highly educated people to work remotely: those who have access to telework were about 3.7 percentage points less likely to leave employment. The self-employed, however, were no more likely to leave employment during the pandemic after controlling for these other factors.

The local severity of the pandemic and its associated recession, however, seem to have had little impact on the share of older individuals leaving employment. Living in a county where the peak death rate was higher is associated with a higher hazard out of employment, but not by a statistically significant margin.<sup>25</sup> Surprisingly, living in a county with greater population density is associated with a *lower* employment exit rate, ruling out the hypothesis that city dwellers were more likely to leave employment, all else equal.<sup>26</sup> A greater employment rate in one's county is not associated with greater probability of leaving employment, but the model also controls for state, time, and state-time fixed effects, which likely capture most of the effect of

<sup>&</sup>lt;sup>24</sup> One exception is workers ages 70 or older: all else equal, this oldest group saw nearly a 7-percentage-point increase.

<sup>&</sup>lt;sup>25</sup> Technically, the COVID-19 death rate is not an interacted variable, but because it is only available in the postpandemic period, it is effectively an interaction.

<sup>&</sup>lt;sup>26</sup> A robustness check dropping New York City, the epicenter of the pandemic's early days, from the analysis yields qualitatively identical results (available from the authors upon request).

macroeconomic conditions. The state-time interactions also capture the majority of the policy response to COVID-19, such as state-level shutdown orders.

#### Retirement

The above results indicate that employment exit was more likely during the pandemic among women, Asian-Americans, those with less than a college degree, and those who could not telework. For individuals ages 55 and older, leaving the workforce is usually associated with the decision to retire, whether voluntarily or involuntarily. But the pandemic was not associated with a large increase in the share of older individuals who report being out of the labor force due to retirement.

Figure 3 plots the overall trend in being out of the labor force due to retirement, among older individuals who did not report that status during their initial CPS interview, for calendar years 2019 and 2020. The trend is largely flat: the average retirement rate before the pandemic (through March 2020) is 12.2 percent, compared to 13.3 percent post-pandemic. That 1-percentage-point difference is statistically significant, but qualitatively small.

With one exception – the oldest workers – no group saw a statistically significant increase in their retirement hazard. The second column of Table 1 reports the estimated coefficients from the interactions with the pandemic indicator, where the dependent variable is leaving the labor force due to retirement. The only interaction effect that is large and statistically significant is the one for the workers ages 70 or older: they were 5.9 percentage points more likely to leave work and retire during the pandemic. None of the other groups with statistically significant increases in their employment exit hazards – women, Asian-Americans, those with less than a college degree, and workers without access to telework – saw commensurate changes in their retirement hazard.

#### Social Security Claiming

The retirement patterns described above suggest only a small increase in OASI claims due to the pandemic – if any. Social Security's actuarial adjustment does not reward workers for delayed claiming past age 70, so virtually all workers in this age group had likely already claimed their benefits before the pandemic started. Indeed, Figure 4 shows that the monthly claim rate for OASI remained constant between April 2019 and June 2021.

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Data on claiming expectations from the U.S. Census Bureau's *Household Pulse Survey* further supports this interpretation.<sup>27</sup> Since the Pulse survey only began asking about Social Security in August 2020, it cannot be used to study claiming early on in the pandemic, nor can the results be compared to pre-pandemic trends. However, between August 2020 and March 2021, the share of respondents ages 55 or older who stated that they expect to claim OASI benefits within the next year remained flat (see Figure 5).<sup>28</sup> All told, older workers who left their jobs because of the pandemic do not seem to be rushing into retirement.

#### Conclusion

The COVID-19 pandemic has impacted every aspect of life, work included. This paper explores how work, retirement, and Social Security retirement claiming were affected by the pandemic, and what groups were most impacted. The findings suggest a divergence between leaving work and retirement among older adults. On the one hand, employment exit among workers over age 55 dramatically increased during the pandemic. This trend was particularly pronounced among women, Asian-Americans, those with less than a college education, and those whose occupations were less amenable to remote work.

On the other hand, self-identified retirement increased only modestly over the past year, and was concentrated among those over age 70. For this reason, Social Security benefit claiming has not markedly increased. This discrepancy between leaving work and retirement can be interpreted in two ways. Some older individuals may intend to return to work once restrictions ease and vaccination makes doing so safer. Others may not intend to return to the labor force, but are using other sources of income – such as extended unemployment insurance or federal stimulus payments – to postpone claiming Social Security.

The policy implications of these patterns will depend on older individuals' desire and ability to re-enter the workforce in the coming years. Even if most people who left their jobs want to return to work, the cohorts reaching retirement during the Great Recession expressed a similar desire only to find that jobs were not available. If workers are forced to take early retirement, then policymakers could consider options to boost their financial resources. For

<sup>&</sup>lt;sup>27</sup> The cross-sectional *Household Pulse Survey* was launched in response to the COVID-19 pandemic.

<sup>&</sup>lt;sup>28</sup> The trend in expectations cannot be extended beyond March 2021 because the wording of the Pulse question changed.

example, Social Security's actuarial adjustment for early and delayed claiming currently overpenalizes early claimants (while rewarding delayed claimants), and could be adjusted to hold lifetime benefits constant.<sup>29</sup> If, on the other hand, older workers are able to re-enter the workforce, future research could investigate whether their new jobs provide comparable wages and benefits to their pre-COVID employment.

<sup>&</sup>lt;sup>29</sup> Biggs, Chen, and Munnell (2021).

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## **Figures and Tables**

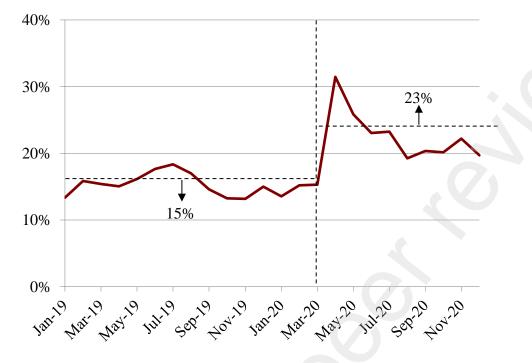
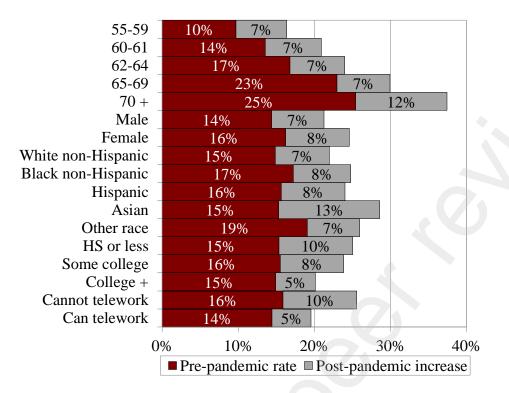


Figure 1. Share of Older Workers Leaving Their Jobs Over the Course of a Year, 2019-2020

Note: The x-axis represents the end date of the one-year interval. Source: Authors' estimates from the *Current Population Survey* (2019-2020).

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Figure 2. Share of Older Workers Leaving Their Jobs Over the Course of a Year, by Demographics and Working Conditions, 2019-2020



Source: Authors' estimates from the Current Population Survey (2019-2020).

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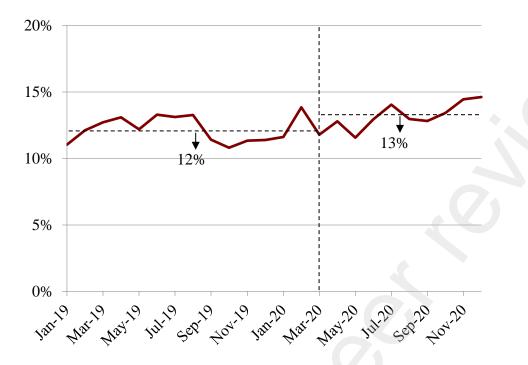


Figure 3. Share of Older Individuals Transitioning to Retirement Over the Course of a Year, 2019-2020

Source: Authors' estimates from the Current Population Survey (2019-2020).

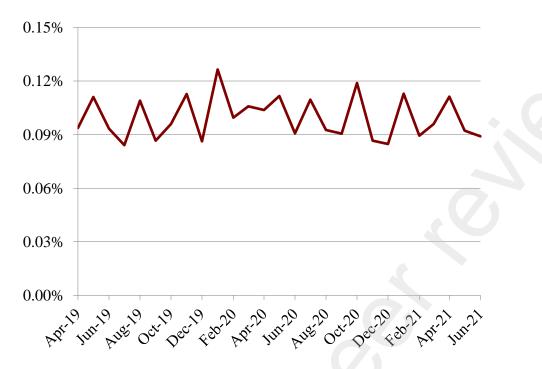


Figure 4. Monthly OASI Benefit Applications Relative to the Population Ages 55 and Older, 2019-2020

Source: Authors' calculations from Social Security Administrative Claims Data (2019-2021).

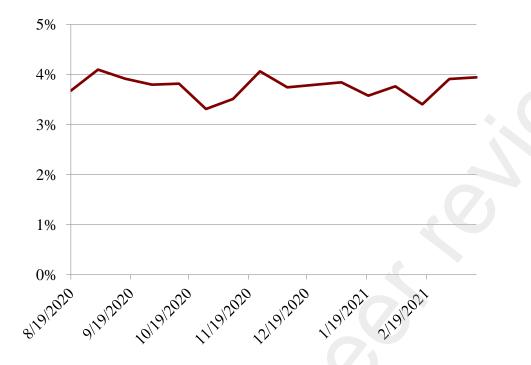


Figure 5. Share of Older Individuals Expecting to Claim OASI Benefits Within the Next Year, 2019-2020

Source: Authors' estimates from the Household Pulse Survey (2020-2021).

Variables	(1)	(2)	
variables	Not working	Retired	
Pandemic	-0.127	-0.081	
Age 60-61 X pandemic	0.013	0.008	
Age 62-64 X pandemic	0.007	0.018*	
Age 65-69 X pandemic	0.007	0.013	
Age 70+ X pandemic	0.067***	0.059***	
Spouse age 60-61 X pandemic	0.026	0.007	
Spouse age 62-64 X pandemic	-0.022	-0.005	
Spouse age 65-69 X pandemic	0.005	-0.028**	
Spouse age 70+ X pandemic	-0.012	-0.0122	
Health problems X pandemic	-0.035*	0.004	
Female X pandemic	0.020**	-0.0001	
Black non-Hispanic X pandemic	-0.002	0.014	
Hispanic X pandemic	0.006	-0.004	
Asian-American X pandemic	0.065**	0.014	
Other X pandemic	-0.012	-0.033	
Some college X pandemic	-0.008	0.006	
Bachelor's + X pandemic	-0.035***	0.012	
Telework X pandemic	-0.037***	-0.008	
Self-employed X pandemic	0.006	-0.004	
County peak deaths	0.022	0.002	
County density X pandemic	1.91e-06	1.43e-06	
Minimum employment rate X pandemic	0.003	0.0004	
Constant	0.160**	0.122**	
R-squared	0.083	0.102	
Observations	35,842	47,775	

Table 1. Regression Results for the Effect of the Pandemic on Job Separations and Retirement, by Worker Characteristics, 2019-2020

Notes: Standard errors in parentheses are clustered at the county level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. *Source:* Authors' estimates from the *Current Population Survey* (2019-2020).

# Appendix

Variables	Total	Pre-pandemic	Pandemic
Age	61.9	61.9	61.9
Spouse age	60.7	60.6	60.7
Female	46.5%	46.5%	46.5%
Telework	45.3	45.0	45.6
Self-employed	17.0	17.0	17.0
County peak deaths	0.09	0.00	0.25
County density	1,864.7	1,869.9	1,856.1
Minimum employment rate	44.7%	47.1%	40.8%
High school	34.2	34.1	34.3
Some college	26.8	26.4	27.4
Bachelor's +	39.0	39.4	38.3
White non-Hispanic	74.6	74.9	74.2
Black non-Hispanic	8.7	8.5	8.9
Hispanic	10.0	9.8	10.2
Asian-American	5.2	5.3	5.1
Other	1.5	1.4	1.6

Table A1. Summary Statistics for the Pre- and Post-Pandemic Regression Samples

Source: Authors' tabulations from the Current Population Survey (2019-2020).

Variables	(1)	(2) Retired	
	Not working		
Pandemic	-0.127	-0.081	
	(0.113)	(0.079)	
Age 60-61	0.035***	0.041***	
	(0.009)	(0.005)	
Age 62-64	0.064***	0.086***	
	(0.008)	(0.007)	
Age 65-69	0.124***	0.165***	
	(0.012)	(0.009)	
Age 70+	0.142***	0.195***	
	(0.013)	(0.011)	
Age 60-61 X pandemic	0.013	0.008	
	(0.015)	(0.010)	
Age 62-64 X pandemic	0.007	0.018*	
	(0.014)	(0.010)	
Age 65-69 X pandemic	0.007	0.013	
	(0.019)	(0.013)	
Age 70+ X pandemic	0.067***	0.059***	
	(0.023)	(0.018)	
Spouse age 60-61	-0.023**	-0.004	
	(0.009)	(0.007)	
Spouse age 62-64	0.019**	0.023***	
	(0.008)	(0.007)	
Spouse age 65-69	0.025**	0.044 ***	
	(0.010)	(0.008)	
Spouse age 70+	0.019	0.031**	
	(0.016)	(0.014)	
Spouse age 60-61 X pandemic	0.026	0.007	
	(0.017)	(0.012)	
Spouse age 62-64 X pandemic	-0.022	-0.005	
	(0.016)	(0.015)	
Spouse age 65-69 X pandemic	0.005	-0.028**	
	(0.018)	(0.013)	
Spouse age 70+ X pandemic	-0.012	-0.012	
	(0.023)	(0.018)	
Health problems	0.078***	0.050***	
	(0.012)	(0.006)	
Health problems X pandemic	-0.035*	0.004	
	(0.019)	(0.010)	
Female	0.020***	0.027***	
	(0.005)	(0.004)	

Table A2. Full Regression Results for the Association Between Worker Characteristics, Job Separation, and Retirement, 2019-2020

Female X pandemic	0.020**	-0.0001	
<b>r</b>	(0.009)	(0.007)	
Black non-Hispanic	0.028**	0.005	
	(0.013)	(0.009)	
Hispanic	0.018	-0.008	
	(0.011)	(0.007)	
Asian-American	0.004	0.003	
	(0.016)	(0.014)	
Other	0.045	0.036*	
	(0.030)	(0.019)	
Black non-Hispanic X pandemic	-0.002	0.014	
1 1	(0.025)	(0.016)	
Hispanic X pandemic	0.006	-0.004	
1 1 ····	(0.023)	(0.015)	
Asian-American X pandemic	0.065**	0.014	
·····	(0.030)	(0.023)	
Other X pandemic	-0.012	-0.033	
c mor Panora	(0.052)	(0.032)	
Some college	0.004	-0.002	
Some conege	(0.007)	(0.006)	
Bachelor's +	0.003	-0.005	
2	(0.007)	(0.006)	
Some college X pandemic	-0.008	0.006	
Some conege il pandonne	(0.015)	(0.009)	
Bachelor's + X pandemic	-0.035***	0.012	
Duchelor 5 · 11 pundenne	(0.012)	(0.008)	
Telework	-0.017***	-0.039***	
Telewonk	(0.006)	(0.004)	
Telework X pandemic	-0.037***	-0.008	
	(0.010)	(0.007)	
Self-employed	0.003	-0.034***	
Sen employed	(0.009)	(0.006)	
Self-employed X pandemic	0.006	-0.004	
Sen employed it puldenne	(0.014)	(0.009)	
County peak deaths	0.022	0.002	
county pour dound	(0.022	(0.021)	
County density	4.73e-08	-1.06e-07	
county density	(6.16e-07)	(4.09e-07)	
County density X pandemic	1.91e-06	1.43e-06	
county actions a pundenne	(1.27e-06)	(1.19e-06)	
Minimum employment rate	-0.002**	-0.002**	
minimum employment rate	(0.001)	(0.001)	
Minimum employment rate X pandemic	0.003	0.0004	
winning on proyment rate X pandeline	(0.002)	(0.002)	
Constant	0.160**	0.122**	
Constant	(0.073)	(0.048)	
	(0.075)	(0.0+0)	

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R-squared	0.083	0.102
Observations	35,842	47,775

Notes: Standard errors in parentheses are clustered at the county level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. *Source:* Authors' estimates from the *Current Population Survey* (2019-2020).

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