

Job transitions and mental health outcomes among US adults aged 55 and older during the COVID-19 pandemic

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Abstract

Objectives: Adults around retirement age are especially vulnerable to the effects of the recent economic downturn associated with COVID-19. This study investigated disturbances to working life and mental health among Americans aged ≥ 55 during early months of the pandemic.

Methods: Using data from the nation-wide COVID-19 Coping Study (N=6,264), we examined rates of job loss, furloughs, hour/income reductions, and work-from-home, along with unchanged work status, by age, gender, race/ethnicity, educational attainment, and occupation. We next described sources of worry by job transition group and tested the adjusted associations of COVID-19-related job transitions with life satisfaction, loneliness, depressive symptoms, and anxiety symptoms.

Results: Most job loss occurred among respondents under age 65 and those without college degrees. Job loss and reduced hours/income were more common among Hispanics compared to other racial/ethnic groups, and work-from-home transitions were most common among respondents with high educational attainment and jobs in government- and education-related occupations. Workers who lost their jobs had the lowest life satisfaction and the highest loneliness and depressive symptoms, followed by workers who were furloughed and workers with reduced hours/income. Work-from-home was associated with more anxiety than unchanged work.

Discussion: COVID-19-related job transitions are detrimental to mental health, even when they might keep workers safe. These results enhance our understanding of the potentially long-term mental health effects of social and economic aspects of the COVID-19 pandemic and highlight the need for economic and mental health support for aging Americans.

Keywords: Employment, Retirement, Coronavirus, Depression

Introduction

In addition to health risks from COVID-19 and challenges related to social isolation (Brooke & Jackson, 2020; Seifert et al., 2020), Americans nearing and beyond retirement age may also be particularly vulnerable to the effects of the recent economic downturn. The COVID-19 pandemic has had a large impact on the U.S. economy, increasing unemployment by 9.2 percentage points between February and May 2020 (Kochhar, 2020). Older adults in America have experienced especially high unemployment (Bui et al., 2020), as well as increased unexpected early retirement (Coibion et al., 2020).

In older workers and in general, unemployment and its associated financial hardships are detrimental to mental health (Brand, 2015; Gallo et al., 2006; Purtle, 2020). The Kaiser Family Foundation and the Pew Research Center conducted polls in March 2020 finding that over half of Americans who lost their job reported a negative impact on their mental health, and psychological distress was high among low income Americans and those who lost their job or had a pay cut (Keeter, 2020; Panchal et al., 2020; Purtle, 2020). Researchers expect increased unemployment from COVID-19 to result in increased suicide deaths in the coming year (Kawohl & Nordt, 2020). Recent research on COVID-19 in Europe specified that economic hardship during lockdowns was associated with increased anxiety and depressive symptoms (Witteveen & Velthorst, 2020), providing evidence for one key mediator between job transitions and mental health. However, these surveys have not focused on retirement-age Americans and have not considered the full range of job transitions including furloughs, reductions in hours or income, and work-from-home mandates. The real mental health consequences of these sudden job transitions for middle-aged and older adults, many of whom are nearing retirement or working beyond retirement age, are currently unknown.

Unlike prior recessions, the COVID-19 economic downturn has resulted in more unemployment for older workers than middle aged workers (Davis et al., 2020), likely due to

COVID-19-related illness and caregiving, workers' health concerns, and employers' age discrimination (Bui et al., 2020). While unemployment brings challenges at every stage of the life course, unexpected disturbances to working life may be uniquely devastating for those nearing retirement, who are not yet eligible for Social Security benefits and whose prospects for high quality re-employment are low (Gallo et al., 2006; Wanberg et al., 2016). Many older workers do not have adequate savings with one-third having none at all (Ghilarducci et al., 2017), while at the same time, family caregiving responsibilities of older adults are rising (Abramson, 2015). In addition, those working beyond retirement age may have high intrinsic motivation to work and a special attachment to their workplace, making COVID-19-related job transitions represent more than lost income (van Solinge, 2014). Prior research on the health impacts of recessions among middle-aged and older adults have found increased hazardous drinking (Bosque-Prous et al., 2015), depressive symptoms, (Pruchno et al., 2017) and mortality associated with job loss during a recession (Noelke & Beckfield, 2014), as well as worsening mental health associated with financial strain (Wilkinson, 2016).

The privation model set forth by Jahoda (1979) states that, in addition to economic sustenance, employment provides "latent functions" including time structure, social relationships, and identity, and thus the psychological impact of unemployment is explained by loss of economic means as well as the latent experiences that work provides (Jahoda, 1979; Navarro-Abal et al., 2018). Unexpected or unwanted changes to employment besides job loss, such as reduced hours or furloughs, may similarly represent major stressors that disrupt the mental health benefits of employment. For example, research on how retirement relates to mental health suggests that the association depends largely on whether retirement was desired or forced (Herzog et al., 1991; Mosca & Barrett, 2016; Sheppard & Wallace, 2018).

At the same time, some job transitions during the COVID-19 outbreak may benefit older workers and their mental health. For example, temporary leaves of absence, reduced hours, and working from home might provide more flexible schedules, which can help older adults maintain employment as they age (Koc- Menard, 2009). Older adults report appreciating such flexibility because of increased freedom, work-life balance, choice, and control in their work life (Loretto & Vickerstaff, 2015). Maestas and colleagues (2018) demonstrated that workers ages 62 and older highly value the ability to set their own schedules and work by themselves compared to younger workers (Maestas et al., 2018). In addition, working from home during the COVID-19 pandemic may improve mental health by relieving concerns about contracting COVID-19 via limiting potential exposures to the virus, which is especially meaningful among workers in the high-risk age group (Brooke & Jackson, 2020).

The objective of this study was to use data from the COVID-19 Coping Study to examine rates of job transitions among Americans ages ≥ 55 in April and May 2020 by age, gender, race/ethnicity, educational attainment, and occupation. We described concerns about contracting COVID-19, work, unemployment, finances, retirement savings, and future plans according to types of job transitions. Finally, we tested the associations between job transitions and mental health outcomes: life satisfaction, loneliness, depressive symptoms, and anxiety symptoms. These models adjusted for potential confounders including sociodemographic factors, occupation, social context, and physical health. We find that job transitions were not equally distributed across sociodemographic groups, and that respondents who experienced job loss had the highest dissatisfaction with life, loneliness, depressive symptoms, and anxiety symptoms, followed, to some degree, by those who experienced furloughs and reductions in hours or income. These results demonstrate the large

impact of the COVID-19 economic downturn on older Americans' mental health outcomes and inequities.

Methods

Data

Data for this analysis came from the COVID-19 Coping Study, a longitudinal mixed-methods study of Americans ages 55 and older (Kobayashi et al., 2021). This unique data source provides a large, timely, and thorough survey of older Americans in the first upswing of the COVID-19 pandemic, which is not currently available in other public aging surveys. The study recruited 6,938 participants through an online multi-frame non-probability sampling scheme from April 2nd through May 31st, 2020. Participants responded to an online baseline questionnaire about the effects of the COVID-19 pandemic on daily life and mental health, with a sub-sample receiving monthly follow-up surveys throughout the following year. We recruited one sub-sample of the overall sample from an existing online research panel, matching the U.S. population aged ≥ 55 according to age, gender, race/ethnicity, and education (N=2,485). The second sub-sample was a “snowball sample” that we recruited through social media, organizational mailing lists, NIH ResearchMatch, the University of Michigan Health Research database, and word-of-mouth (N=4,453). The final analytic sample for this study included the 6,264 respondents with complete data on all model variables, excluding 9.7% with item missingness. We used population-based survey weights based on data on age, sex, race, ethnicity, education, and marital status on the US population aged ≥ 55 from the 2018 American Community Survey to reduce potential selection and other non-sample biases. Detailed information on the study design, recruitment, and methodology are available elsewhere (Kobayashi et al., 2021).

Measures

The main exposure in this analysis was job transitions due to COVID-19, assessed at baseline in April and May 2020. Job transitions were non-mutually exclusive, and respondents who experienced more than one job transition were grouped with the potentially more disruptive transition in the following order: lost employment (most disruptive), furloughed, reduced hours or income, and work-from-home (least disruptive). We also identified respondents who reported that their employment status (both working and not working) was unaffected by the COVID-19 pandemic. The outcomes in this analysis were four measures of mental health – life satisfaction (0-10 scale from the Gallup World Poll), depressive symptoms (8-item Center for Epidemiologic Studies Depression Scale; CES-D), anxiety symptoms (5-item Beck Anxiety Inventory; BAI), and loneliness (3-item UCLA Loneliness Scale). Full details on these measures are available elsewhere (Beck & Steer, 1990; Bjørnskov, 2010; Karim et al., 2015; Kobayashi et al., 2021; Russell, 1996). We standardized these measures (mean of zero and a standard deviation of one) so that model results across outcomes could be more easily compared.

The questionnaire also asked respondents about sources of worry; for this analysis we focused on concerns about contracting COVID-19, work, unemployment, finances, retirement savings, and future plans. The survey asked about worries that were “constantly on your mind or keeping you awake at night.” Covariates included age, gender, race/ethnicity, educational attainment, occupation, use of any mobility aids, physician-diagnosed health conditions (high blood pressure, diabetes, heart disease, asthma, chronic obstructive pulmonary disease or COPD, cancer, and other mental or physical health conditions), smoking status, relationship status, household membership (non-exclusively: living alone, living with children, living with grandchildren or other family, living with friends, roommates, or others), and U.S. Census Division of residence based on reported zip code

(New England, Middle Atlantic, South Atlantic, East South Central, West South Central, East North Central, West North Central, Mountain, and Pacific).

We categorized open-ended responses about occupation into ten groups using the 2018 Standard Occupational Classification of the U.S. Bureau of Labor Statistics as a guide (U.S. Bureau of Labor Statistics, 2020). The resulting groups are listed in Table 1. While this item asked about current work or prior work before exiting the labor force, occupation was occasionally coded as not applicable when respondents reported non-compensated work, disability, or unemployment. The full study questionnaire can be found at: <https://www.covid19copingstudy.com/>.

Statistical Analysis

The first step of this analysis was examining the prevalence of each type of job transition in the overall sample and by sociodemographic groups (age group, gender, race/ethnicity, educational attainment) and occupation. Next, we compared the prevalence of each source of worry listed in the previous section, according to each job transition. In adjusted analyses, we used ordinary least squares (OLS) models to separately test the associations between job transitions and each standardized mental health outcome – life satisfaction, loneliness, depressive symptoms, and anxiety symptoms. These models adjusted for all the above-mentioned sociodemographic, occupational, and health-related covariates, to capture potential confounding factors. From these models, we conducted adjusted Wald tests to test the statistical significance of job transition groups in predicting mental health outcomes and then plotted marginal predicted standardized mental health outcomes in each job transition group.

We conducted two sets of sensitivity analyses. The first aimed to explore how results changed when additionally adjusting for previous physician diagnoses of depression and

anxiety, which were only available for the online panel subsample, not the snowball subsample. We first compared mental health outcome models in the online panel subsample with and without the added controls of previous physician diagnoses of depression and anxiety. Then, we compared the original results to models using the full sample with imputed missing values in the snowball sample. For three quarters of the missing values (2,991/3,957) in the snowball sample, we filled in missingness based on data collected at the two-month and three-month follow-ups, when respondents reported if they had been diagnosed with depression or anxiety prior to April 2020. We imputed the remaining one-third (N=996) using model covariates. Finally, we compared models using the original sample versus a subsample of respondents with no prior depression and anxiety diagnoses (N=4,786). To create this subsample, we used the online panel sample and a subset of the snowball sample who had prior diagnosis information from waves two and three of data collection. The second set of sensitivity analyses probed for the potential of residual selection bias in the snowball subsample that was not addressed by the use of population weights. We first compared sociodemographic characteristics of participants in the snowball subsample to those of the online panel subsample, and then we re-ran our main analyses in the snowball subsample to evaluate whether results within this subsample differed from those observed in the full sample.

All analyses were population-weighted using sociodemographic data on adults aged 55+ in the 2018 American Community Survey (Kobayashi et al., 2021), and we treated the analytic sample as a non-random subpopulation.

Results

The analytic sample containing respondents with complete data on all model variables contained 6,264 participants. Among the 2,447 respondents who had been working prior to COVID-19, weighted analysis revealed that 25.9% (95% CI: 23.3, 28.8) had work that was

unaffected by COVID-19, 5.9% (95% CI: 4.7, 7.5) lost their job, 18.3% (95% CI: 15.9, 21.0) were furloughed or placed on a leave of absence, 22.8% (95% CI: 20.3, 25.5) experienced reductions in their hours or income, and 27.1% (95% CI: 24.7, 29.5) transitioned to working from home. Approximately 8% (95% CI: 7.2, 9.2) of the total weighted sample reported that their work was unaffected by COVID-19.

Table 1 shows the population-weighted distributions of these job transitions by sociodemographic factors and occupation, with statistically significant differences in job transitions according to age group ($p < 0.001$), race/ethnicity ($p = 0.0203$), educational attainment ($p < 0.001$), and occupation ($p < 0.001$), but not according to gender ($p = 0.0841$). For example, job loss and reduced hours/income were more common among Hispanics compared to other racial/ethnic groups (Table 1). Most of the observed job losses occurred among respondents below age 65 (79%); when looking only at respondents working prior to COVID-19, 6.6% of workers ages 55-64 lost their jobs compared to 4.3% of workers ages 65+. Job loss was most common among respondents without a four-year college degree (73%) and workers in the arts, design, entertainment, sports, and media occupations, as well as food services, building/ground maintenance, and personal care/service occupations (Table 1). Respondents who reported transitioning to work-from-home tended to have high educational attainment and to work in government, non-profits, social services, legal, and military occupations, as well as educational instruction and library occupations. Supplemental Table 1 shows the distribution of all other model variables by job transitions.

Those with unchanged work (the reference group in the adjusted analysis of mental health outcomes) were more likely to be male than female (53.1% versus 46.2%, $p = 0.0446$), tended to be younger ($p < 0.001$), and disproportionately worked in healthcare and sales/administrative occupations ($p < 0.001$). Compared to the rest of the sample, this group was also less likely to use mobility aids (3.8% versus 12.1%, $p < 0.001$) and less likely to have

high blood pressure (38.4% versus 52.7%, $p < 0.001$), heart disease (5.4% versus 9.9%, $p = 0.0034$), or chronic obstructive pulmonary disease (2.6% versus 9.4%, $p < 0.001$).

Figure 1 shows the prevalence of worry about contracting COVID-19, work, unemployment, finances, retirement savings, and future plans by job transition groups. Overall, those who lost their job had the highest total worry when summing across sources of worry, as well as the highest prevalence of specific worries about contracting COVID-19 (48.8%), unemployment (61.4%), finances (50.1%), retirement savings (35.4%), and future plans (43.0%). The largest source of worry across all job transition groups was contracting COVID-19, followed by finances and future plans, and these specific worries were highest among those who lost their job and lowest among those who were not working (Figure 1). Worries about work itself were low, except for those who transitioned to working from home (37.4%) or who experienced reduced hours or income (32.3%).

The weighted mean life satisfaction (ranging 0-10) was 6.93 (SD=2.44), mean loneliness (3-9) was 4.69 (SD=1.85), mean depressive symptoms (0-8) was 2.09 (SD=2.53), and mean anxiety score (1-4) was 1.67 (SD=0.60). Adjusted Wald tests from the weighted, adjusted OLS regression models identified statistically significant associations between overall job transition groups and life satisfaction ($F(5,6933)=4.90$, $p=0.0002$), loneliness ($F(5, 6933)=2.83$, $p=0.0147$), and depressive symptoms ($F(5, 6933)=4.43$, $p=0.0005$), but not anxiety symptoms ($F(5, 6933)=1.57$, $p=0.1659$). Table 2 summarizes these model results, showing adjusted associations between specific job transitions and each standardized mental health outcome. Complete model results for all covariates are shown in Supplemental Table 2.

Figure 2 shows the predictive margins of standardized mental health outcomes across job transition groups from these weighted, adjusted models. Workers who lost their jobs had the lowest life satisfaction (-0.32, 95% CI: -0.57, -0.08) and the highest loneliness (0.28, 95%

CI: 0.01, 0.54), depressive symptoms (0.39, 95% CI: 0.19, 0.60), and anxiety symptoms (0.19, 95% CI: -0.04, 0.43). These poor mental health outcomes occurred to a lesser degree among workers who were furloughed, followed by workers who faced reductions to hours or income (Figure 2; Supplemental Table 2). Figure 2 shows that working from home was not associated with life satisfaction (-0.02, 95% CI: -0.12, 0.07), loneliness (0.02, 95% CI: -0.07, 0.11) or depressive symptoms (-0.03, 95% CI: -0.12, 0.06). However, those who transitioned to working from home experienced significantly higher anxiety than those who were not working (0.12, 95% CI: 0.01, 0.23) and marginally higher anxiety than those whose work was unchanged in the early months of the pandemic (0.14, 95% CI: -0.00, 0.28).

Sensitivity Analyses

In the first sensitivity analysis, we ran the same models using only respondents from the online panel subsample (N=2,307). When indicators for previous physician diagnoses of depression and anxiety were added to the models, the association between job transitions and each mental health outcome usually became larger and more significant compared to models without these indicators (Supplemental Table 3). The adjusted Wald test results for job transitions in these models compared to original models are as follows: life satisfaction (F(5, 2480)=5.40 versus 4.60), loneliness (F(5, 2480)=2.62 versus 1.55), depressive symptoms (F(5, 2480)=4.51 versus 2.82), and anxiety symptoms (F(5, 2480)=3.18 versus 1.64). In the second sensitivity analysis that used the full study sample with imputed values for previous depression and anxiety diagnoses revealed the same pattern (Supplemental Table 4). When re-running models using the 4,786 respondents without prior diagnoses of depression or anxiety, we found generally similar relationships between job transitions and mental health outcomes as in the original model, with the exception of loneliness: job loss and furloughs

resulted in increased loneliness in the original model but not in the subsample without prior depression or anxiety diagnoses (Supplemental Table 5).

The sensitivity analyses exploring selection bias in the snowball sample are shown in Supplemental Tables 6 and 7. The snowball subsample contained more female, non-Hispanic white, and highly educated respondents than the online panel subsample (Supplemental Table 6). Snowball sample respondents were more likely to work in education, healthcare, and government. They were also more likely to transition to work from home and to have been working pre-COVID. Aside from life satisfaction, standardized mental health outcomes appear to be better in the snowball sample than the online panel sample. Supplemental Table 7 identifies that the associations between job transitions and mental health outcomes were weaker in the snowball sample than in the original analysis using combined samples.

Discussion

This analysis revealed that middle-aged and older Americans who had been in the workforce prior to COVID-19 experienced high rates of unexpected job transitions that, like COVID-19 infections and deaths themselves (Abedi et al., 2020; Garcia et al., 2020), were not equally distributed across sociodemographic groups. Job loss was disproportionately common among Hispanic respondents, those with some college education, and workers in arts and food, grounds, and personal service-related occupations. Specific occupations included, for example, performers, writers, waiters, janitors, barbers, and childcare workers. A working paper on COVID-19 job loss asserts that a substantial share of sociodemographic disparities in job loss is due to pre-pandemic sorting into different types of work, namely the service sector versus work that can be done from home (Montenovo et al., 2020). We found that respondents who experienced job loss, furloughs, and reductions in hours or income had the highest dissatisfaction with life, loneliness, and depressive symptoms, consistent with

previous understandings of the health effects of unemployment (Brand, 2015; Gallo et al., 2006). Together, these findings confirm that COVID-19, like prior economic downturns, is likely exacerbating economic and mental health inequalities (Burgard et al., 2013; Purtle, 2020; Witteveen & Velthorst, 2020).

The mental health outcomes observed in our sample are a bit worse compared to pre-pandemic rates in middle aged and older populations observed in prior studies. For example, mean depressive symptom score using the CESD-8 in this sample was 2.08, compared to 1.57 using the same measure in the nationally representative U.S. Health and Retirement Study (HRS) (Abrams & Mehta, 2019). Similarly, mean loneliness using the 3-Item UCLA Loneliness Scale was 4.69 in our study and 3.89 in prior research using the U.S. HRS (Hughes et al., 2004). Such deviations could be due to sample differences, or, to the overall impact of COVID-19 on mental health irrespective of job transitions. One study comparing the mental health of adults ages 65 and older in the Netherlands in Fall 2019 versus May 2020 found that COVID-19 lockdowns increased loneliness, but other mental health outcomes remained stable (van Tilburg et al., 2020).

Looking specifically at the impact of job transitions and related economic hardship, previous research has found associations with poor mental health during the COVID-19 pandemic (for example, Keeter 2020, Panchal et al. 2020, Witteveen & Velthorst, 2020). Our study is unique in its focus on losing employment and income around retirement age in America, when COVID-19-related financial hardship may have even larger implications for economic and mental well-being. For example, we found high rates of worry about retirement savings among workers who lost their job. Comparing our findings in older adults to those focused on ages 24-64 and the general adult population reveals similar associations of job loss with high distress, depression, and anxiety (Keeter, 2020; Witteveen & Velthorst, 2020). While unemployment and related financial hardships are detrimental to mental health outside

of the COVID-19 context (Brand, 2015; Gallo et al., 2006), the health implications of job loss for older adults may be even larger during a pandemic and recession than in more stable times (Noelke & Beckfield, 2014).

Our findings on the association between job transitions and poor mental health fall in line with the privation model, which considers employment's mental-health benefits beyond economic security (Jahoda, 1979; Navarro-Abal et al., 2018). For example, the loss of social relationships, social support, and belonging that accompany work may represent important mechanisms between job transitions and mental health outcomes, especially loneliness (Gratz et al., 2020; Mallinckrodt & Fretz, 1988). Our study uniquely captures job transitions besides job loss to show that disruptions to either the economic security or the social environment of work, but not both, as experienced with reductions in income and working from home, were associated with reductions in mental health to a lesser degree than losing employment completely.

Another key finding from our study is that working from home was not associated with life satisfaction, loneliness, or depressive symptoms, but did relate to a small increase in anxiety. This finding indicates that unexpected, mandatory disturbances to working life are detrimental to mental health, even when some of these changes, like working from home, may protect the health of workers and their families during infectious disease pandemics. It is possible that working from home increases anxiety because this transition often results in increased unpaid caregiving and housework, the blurring of work and non-work spaces and schedules, and sometimes even increased working hours (Mallett et al., 2020; O'Neill et al., 2009). Identifying how to maximize well-being for workers at home and support competing domestic demands will be critical if COVID-19 working arrangements become more permanent.

While one might have expected that working through this pandemic as a middle-aged or older person would be a large stressor, those whose work was unchanged experienced the best mental health. This surprising finding may have occurred because those with unchanged work in April and May 2020 tended to reside in areas less affected by COVID-19 at that time, as evidenced by slightly higher rates of job transitions in New England and lower rates of job transitions in the West South Central and Mountain divisions. However, our findings are independent of any differences between participants according to U.S. Census Division of residence, which was adjusted for in all models of mental health outcomes. In the context of the privation model (Jahoda, 1979; Navarro-Abal et al., 2018), better mental health of those with unchanged work may reflect stability in income, social relationships, and daily schedules. Another unexpected finding was that adults who lost their jobs had high worries about contracting COVID-19, which may be due to exposures outside of the workplace, such as crowded housing. In our study, those who lost their job were less likely to live alone than those whose job status was unchanged, furloughed, or reduced hours or income. These findings point to the importance of capturing contextual factors regarding the workplace and home environment in understanding worker well-being.

This study has a few notable limitations, as well as several strengths. As with many aging surveys, those too sick to participate are not represented (Banks et al., 2011), which, in this case, may include those most affected by COVID-19 and most likely to experience poor mental health outcomes. The snowball subsample also presents a potential challenge to generalizability, if there are reasons for study participation that are related to job transitions and mental health outcomes, but not correlated with demographic factors included in weighting. Models run with only the snowball sample produced weaker associations between job transitions and mental health outcomes, suggesting that the relationships between job transitions and mental health outcomes would be stronger than observed in this study if the

snowball sample were more representative of the population. While survey weights address some of this bias, results such as rates of job loss may not represent population prevalence if the weights do not account for unmeasured drivers of sample selection (Kobayashi et al., 2021). Despite careful adjustments, the models may have residual confounding from unobserved factors. Our sensitivity analysis revealed that capturing histories of diagnosed depression and anxiety likely strengthen the association between job transitions and mental health outcomes, rather than attenuate the relationship, making this study's estimates conservative. Our results were also negligibly changed when restricting to only individuals without a prior depression or anxiety diagnosis, except for the association of job transitions with loneliness. Future research should explore potential effect modifiers of the relationship between job transitions and mental health during COVID-19, including prior mental illness, wealth, and forced versus voluntary job transitions.

While the current study used a two-month time frame, future work using the COVID-19 Coping Study data will be able to examine the labor force status and mental well-being of retirement-age Americans in the months that followed to determine whether initial declines in well-being subside over time. Given that the COVID-19 pandemic and associated economic downfalls are ongoing and approaching their one-year mark in the United States, it is likely that older adults are facing persistent job insecurity and thus persistent mental and physical health consequences (Burgard & Seelye, 2017; Kalil et al., 2010).

This study makes several important contributions given its timely data collection, large sample size, inclusion of data on multiple job transitions, and thorough assessment of mental health and well-being. To our knowledge, there are few data sources available that survey American workers near and beyond retirement age during the first upswing of the COVID-19 pandemic in the United States. This study enhances our understanding of the secondary and potentially long-term effects of the COVID-19 pandemic on mental health and

well-being among Americans aged 55 and over. Findings point to the urgency of providing direct economic and mental health support to middle-aged and older adults facing job loss, especially older Black and Hispanic adults who likely have less wealth than Whites to cushion the implications of late life job insecurity (Garcia et al., 2020). They also beg for the extension of social assistance benefits beyond unemployment given the substantial suffering among those facing other work disturbances and economic vulnerability.

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Tables and Figures.

Table 1. Population-weighted column percentages (95% confidence intervals) of job transitions at the COVID-19 Coping Study baseline (April and May 2020), by sociodemographic factors and occupation, N=6,264.

	Work unchanged	Not working, unchanged	Lost job	Furloughed	Reduced hours or income	Working from home	Total
Overall (row %)	8.12 (7.17, 9.18)	68.70 (66.98, 70.37)	1.85 (1.46, 2.35)	5.73 (4.92, 6.67)	7.13 (6.27, 8.10)	8.47 (7.70, 9.30)	100.00
Age groups (p<0.001)							
55-59	38.76 (32.73, 45.16)	14.67 (12.92, 16.61)	37.12 (26.10, 49.66)	35.35 (27.68, 43.86)	41.61 (35.11, 48.41)	44.40 (39.69, 49.22)	22.66 (21.04, 24.37)
60-64	32.57 (26.79, 38.93)	17.99 (16.17, 19.96)	42.20 (31.02, 54.24)	29.26 (22.97, 36.46)	27.52 (22.31, 33.44)	31.20 (27.12, 35.60)	22.07 (20.53, 23.68)
65-69	15.85 (12.00, 20.65)	18.66 (16.97, 20.48)	11.28 (6.30, 19.38)	17.33 (12.70, 23.20)	21.17 (16.29, 27.03)	15.71 (12.82, 19.12)	18.15 (16.81, 19.57)
70-74	6.10	17.56	7.51	7.90	6.04	5.17	14.02

	(4.15, 8.88)	(15.81, 19.45)	(3.96, 13.79)	(5.16, 11.90)	(4.12, 8.77)	(3.68, 7.23)	(12.76, 15.38)
75-79	2.32	12.96	0.00	6.33	2.47	2.11	9.81
	(1.31, 4.05)	(11.50, 14.58)		(3.75, 10.50)	(1.29, 4.65)	(1.19, 3.71)	(8.77, 10.96)
80+	4.40	18.16	1.89	3.83	1.20	1.40	13.29
	(1.91, 9.83)	(15.96, 20.59)	(0.27, 12.21)	(1.56, 9.12)	(0.53, 2.66)	(0.62, 3.14)	(11.69, 15.07)
Gender (p=0.0841)							
Male	53.08	46.65	37.83	44.35	50.50	42.14	46.77
	(46.70, 59.37)	(44.14, 49.18)	(26.72, 50.38)	(36.46, 52.53)	(43.96, 57.02)	(37.39, 47.04)	(44.80, 48.76)
Female	46.92	53.35	62.17	55.65	49.50	57.86	53.23
	(40.63, 53.3)	(50.82, 55.86)	(49.62, 73.28)	(47.47, 63.54)	(42.98, 56.04)	(52.96, 62.61)	(51.24, 55.20)
Race/Ethnicity (p=0.0203)							
NH White	75.80	75.22	65.27	73.58	73.19	66.06	74.07
	(69.24, 81.33)	(72.62, 77.65)	(52.03, 76.50)	(64.63, 80.94)	(66.27, 79.13)	(60.91, 70.85)	(72.05, 75.99)
NH Black	8.72	10.12	3.89	8.56	7.50	10.00	9.61
	(5.18, 14.31)	(8.52, 12.00)	(0.98, 14.23)	(5.02, 14.22)	(4.66, 11.86)	(7.23, 13.66)	(8.36, 11.02)
Hispanic	8.13	9.05	20.63	8.11	12.05	11.92	9.59

	(4.67, 13.78)	(7.31, 11.15)	(11.32, 34.60)	(4.49, 14.23)	(7.52, 18.76)	(8.28, 16.86)	(8.19, 11.21)
NH Other	7.35	5.61	10.22	9.75	7.26	12.03	6.73
	(5.00, 10.67)	(4.45, 7.04)	(4.77, 20.57)	(4.61, 19.47)	(4.52, 11.48)	(9.18, 15.61)	(5.73, 7.89)
Educational Attainment (p<0.001)							
High school or less	39.75	49.97	27.41	47.96	38.06	11.70	44.52
	(33.13, 46.75)	(47.45, 52.50)	(17.28, 40.57)	(40.10, 55.92)	(31.22, 45.42)	(8.35, 16.17)	(42.46, 46.60)
Some college	27.94	27.22	45.30	28.86	26.79	22.81	27.30
	(22.75, 33.81)	(25.21, 29.33)	(33.74, 57.38)	(22.68, 35.96)	(21.53, 32.79)	(18.36, 27.97)	(25.68, 28.99)
Four-year degree	19.93	13.23	17.53	15.85	21.74	30.47	16.07
	(16.28, 24.16)	(12.15, 14.38)	(11.59, 25.64)	(12.24, 20.28)	(17.80, 26.27)	(26.48, 34.77)	(15.08, 17.11)
Postgrad	12.38	9.58	9.76	7.33	13.41	35.02	12.11
	(10.08, 15.12)	(8.82, 10.39)	(6.04, 15.39)	(5.42, 9.84)	(10.92, 16.37)	(31.22, 39.01)	(11.39, 12.86)
Occupation (p<0.001)							
Management,	7.10	7.38	7.25	4.80	8.40	10.00	7.50
business, finance	(4.83, 10.31)	(6.29, 8.64)	(3.31, 15.14)	(2.34, 9.61)	(5.96, 11.71)	(7.56, 13.10)	(6.63, 8.47)
Computers, math,	5.75	8.10	3.98	3.06	6.86	12.64	7.84

architecture, tech,	(3.84, 8.54)	(7.05, 9.29)	(1.51, 10.12)	(1.51, 6.11)	(4.06, 11.35)	(9.87, 16.05)	(7.00, 8.77)
engineering,							
science							
Educational,	3.58	6.34	5.97	8.20	5.13	26.67	7.85
library	(2.20, 5.78)	(5.55, 7.24)	(2.77, 12.39)	(5.39, 12.30)	(3.31, 7.87)	(22.99, 30.70)	(7.13, 8.64)
Arts, design,	3.76	2.02	8.14	7.34	6.69	1.57	2.87
entertainment,	(2.22, 6.33)	(1.48, 2.74)	(4.13, 15.44)	(4.18, 12.57)	(3.85, 11.38)	(0.71, 3.44)	(2.33, 3.53)
sports, media							
Healthcare	13.01	6.11	3.16	7.46	12.43	5.57	7.10
	(9.59, 17.41)	(5.21, 7.16)	(1.31, 7.42)	(4.88, 11.23)	(8.68, 17.50)	(3.94, 7.81)	(6.30, 7.99)
Food services,	8.03	5.14	12.00	22.57	10.27	2.12	6.61
building/ground	(4.83, 13.04)	(4.07, 6.48)	(6.40, 21.41)	(16.43, 30.18)	(6.83, 15.18)	(0.99, 4.50)	(5.64, 7.74)
maintenance,							
personal							
care/services							

Sales,	22.80	14.97	25.40	15.28	18.92	12.08	15.85
administrative	(17.65, 28.94)	(13.37, 16.73)	(15.36, 38.97)	(10.86, 21.08)	(14.49, 24.33)	(9.11, 15.85)	(14.52, 17.28)
Farming, fishing,	11.67	9.70	10.49	15.75	15.68	6.17	10.35
forestry,	(7.50, 17.70)	(8.21, 11.42)	(5.29, 19.73)	(9.62, 24.72)	(10.74, 22.32)	(3.62, 10.32)	(9.07, 11.78)
construction,							
extraction,							
transportation,							
moving, protective							
services							
Installation,	12.11	8.73	11.25	5.56	5.64	5.39	8.37
maintenance,	(8.24, 17.47)	(7.45, 10.21)	(5.16, 22.83)	(3.08, 9.85)	(3.28, 9.51)	(3.60, 7.99)	(7.35, 9.52)
energy/utility							
Government, non-	8.19	7.74	6.85	6.71	7.14	16.37	8.39
profits, community	(5.87, 11.30)	(6.67, 8.96)	(3.28, 13.74)	(4.25, 10.45)	(4.87, 10.34)	(13.27, 20.03)	(7.52, 9.34)
and social services,							
legal, military							

N/A	4.00	23.78	5.51	3.26	2.84	1.42	17.27
	(2.35, 6.75)	(21.32, 26.42)	(1.97, 14.44)	(1.64, 6.38)	(1.47, 5.39)	(0.77, 2.61)	(15.48, 19.22)

Note. NH= Non-Hispanic. HS= High School. See Measures section for full details on occupation groupings. Percentages may not sum to 100% due to rounding.

Table 2. Weighted, adjusted models of standardized mental health outcomes by job transitions and key sociodemographic factors (complete covariate results in Supplemental Table 2)

Variables	Life		Depressive	Anxiety
	Satisfaction	Loneliness	Symptoms	Symptoms
Ref: Working, unchanged				
Not working, unchanged	-0.04	0.01	0.05	0.02
	(-0.17, 0.10)	(-0.13, 0.15)	(-0.08, 0.18)	(-0.11, 0.15)
Lost job	-0.39**	0.31*	0.46***	0.23
	(-0.66, -0.12)	(0.02, 0.61)	(0.23, 0.70)	(-0.02, 0.49)
Furloughed	-0.28**	0.22*	0.21*	0.07
	(-0.48, -0.08)	(0.04, 0.39)	(0.04, 0.38)	(-0.10, 0.25)
Reduced hours or income	-0.26**	0.12	0.13	0.06
	(-0.44, -0.08)	(-0.05, 0.29)	(-0.03, 0.30)	(-0.09, 0.22)
Work from home	-0.10	0.06	0.04	0.14
	(-0.24, 0.05)	(-0.09, 0.21)	(-0.10, 0.18)	(-0.00, 0.28)
Ref: Male				
Female	-0.06	0.15***	0.22***	0.20***

(-0.14, 0.02) (0.08, 0.23) (0.14, 0.29) (0.12, 0.28)

Ref: 55-59 years old

60-64	0.07 (-0.04, 0.19)	-0.09 (-0.19, 0.02)	-0.14* (-0.25, -0.03)	-0.15* (-0.27, -0.03)
65-69	0.17** (0.05, 0.29)	-0.18** (-0.29, -0.07)	-0.26*** (-0.38, -0.15)	-0.22*** (-0.34, -0.10)
70-74	0.24*** (0.11, 0.38)	-0.28*** (-0.41, -0.14)	-0.34*** (-0.48, -0.21)	-0.26*** (-0.39, -0.12)
75-79	0.30*** (0.15, 0.45)	-0.41*** (-0.55, -0.28)	-0.53*** (-0.67, -0.39)	-0.38*** (-0.52, -0.23)
80+	0.43*** (0.26, 0.60)	-0.43*** (-0.57, -0.29)	-0.60*** (-0.74, -0.46)	-0.46*** (-0.61, -0.30)

Ref: NH White

NH Black	0.22** (0.08, 0.36)	-0.20** (-0.34, -0.06)	-0.29*** (-0.41, -0.17)	-0.18* (-0.33, -0.03)
Hispanic	0.01 (-0.14, 0.16)	-0.09 (-0.24, 0.06)	-0.03 (-0.17, 0.11)	0.07 (-0.07, 0.22)
NH Other Race	-0.12 (-0.28, 0.04)	-0.06 (-0.20, 0.08)	-0.07 (-0.19, 0.05)	0.11 (-0.03, 0.25)

Ref: HS degree or less

Some college	0.01 (-0.09, 0.10)	0.17*** (0.08, 0.26)	0.02 (-0.07, 0.10)	0.04 (-0.05, 0.12)
College degree	-0.02	0.12**	0.03	0.08

	(-0.12, 0.07)	(0.03, 0.21)	(-0.05, 0.12)	(-0.01, 0.17)
Graduate degree	0.06	0.07	-0.04	0.04
	(-0.04, 0.16)	(-0.02, 0.17)	(-0.13, 0.05)	(-0.05, 0.13)

Note. 95% confidence intervals in parentheses; *** p<0.001, ** p<0.01, * p<0.05; NH= Non-Hispanic. HS= High School. Models are weighted and additionally adjusted for occupation, mobility aid, physician-diagnosed health conditions, smoking status, relationship status, household membership, and U.S. Census Divisions.

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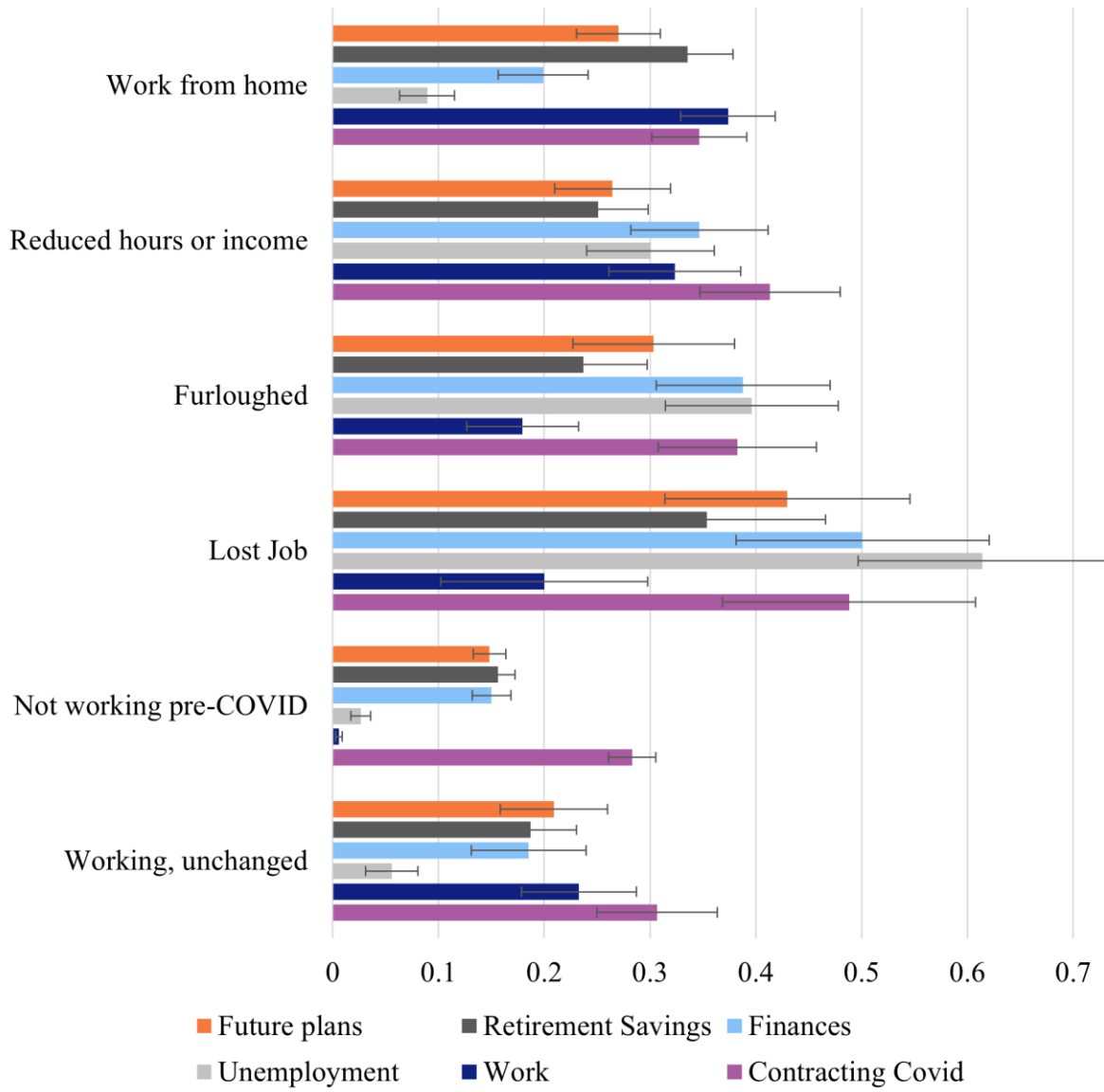
Figure 1. Weighted porportion of respondents in each job transition group reporting each type of worry

Note: Worries were reported as those that were “constantly on your mind or keeping you awake at night”. Error bars represent 95% CIs.

Figure 2. Predicted standardized mental health outcomes (95% CI) from adjusted weighted OLS models.

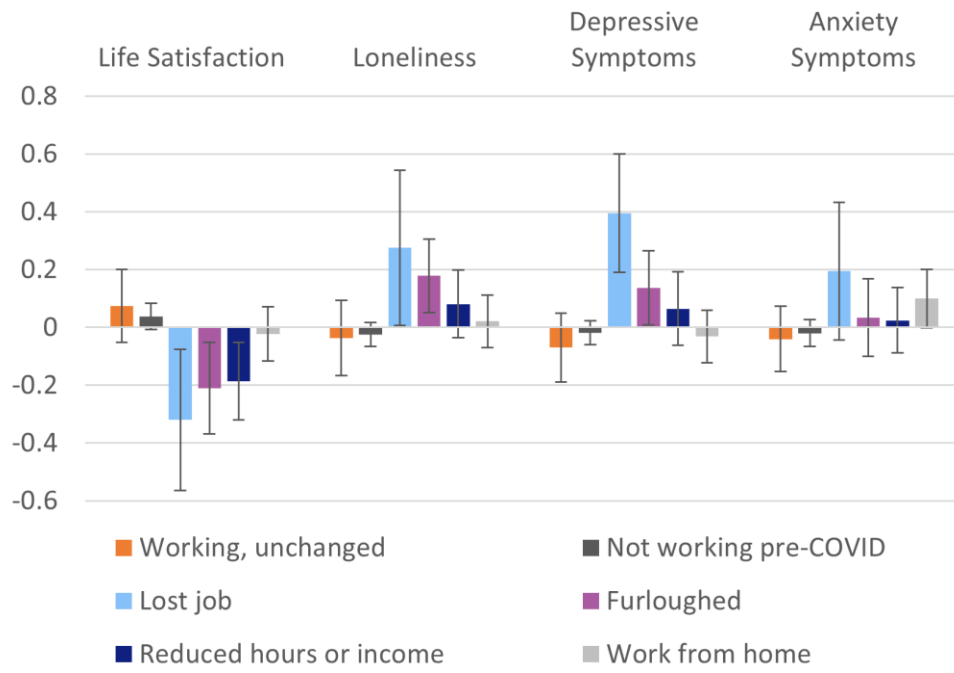
Note. Models are weighted and adjusted for age group, gender, race/ethnicity, educational attainment, occupation, medical conditions (high blood pressure, diabetes, heart disease, asthma, chronic obstructive pulmonary disease, cancer, other physical or mental health condition), use of mobility aid, smoking status, living alone, household membership, relationship status, and US Census division.

Figure 1



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Figure 2



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