

# CAN OLDER WORKERS WORK FROM HOME?

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## Introduction

A major issue concerning the COVID-19 pandemic is how it will affect future employment options for older workers. Public health officials have made it clear that older people are more at risk of complications from the virus, meaning they may be the last to return to work. Therefore, their ability to survive financially will depend on their ability to work from home. So, the question becomes how many older workers can work from home.

This *brief* builds on recent research that identified occupations that can be done remotely. The new analysis links these jobs to a dataset of individual workers to examine any differences by age, earnings, education, and gender. The somewhat surprising result is that roughly the same percentage of older and younger adults can work from home. The ability to work from home, however, does depend on education, which means that it is highly correlated with earnings.

The discussion proceeds as follows. The first section describes the recent study used here as a basis for identifying occupations where working at home is a possibility. The second section presents the results by age and earnings by linking the occupations with the *Annual Social and Economic Supplement* of the *Current Population Survey* (CPS). The findings show that about 45 percent of older workers are in occupa-

tions with the ability to work remotely and that this ability is strongly correlated with earnings. The third section discusses further results by earnings, education, and gender.

The final section concludes that the findings are a good news/bad news story for older workers. The good news is that they are as well situated as younger workers in terms of occupations that allow remote work. The bad news is that only about 45 percent of older workers are in such occupations. Thus, as the economy opens up, the other 55 percent, who cannot work from home and tend to be lower paid, will face either health risks – returning to work before the virus is under control – or economic risks – delaying work until the environment is safe, which may exhaust their resources.

## Which Jobs Can Be Done from Home?

To identify occupations in which employees could work at home, this analysis adopts the classification presented in a recent study by Dingel and Neiman (2020). These researchers use data from the Occupational Information Network (O\*NET) survey, which

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contains hundreds of standardized and occupation-specific descriptors on almost 1,000 occupations throughout the U.S. economy. To decide whether a job can be done at home, they look at two parts of the survey.

In the “Work Context” survey, the researchers define the occupation as one that cannot be performed at home if the average respondent reports that any of the following conditions are true:

- uses email less than once per month;
- works outdoors every day;
- deals with violent people at least once a week;
- wears safety equipment a majority of the time;
- spends a majority of time walking or running; or
- is exposed to minor burns, cuts, bites, or stings least once a week; or
- is exposed to diseases/infection at least once a week.

In the “Generalized Work Activities” survey, the researchers define the occupation as one that cannot be performed at home if any of the following conditions are very important:

- performing general physical activities;
- handling and moving objects;
- controlling machines and processes;
- operating vehicles or equipment;
- performing for or working directly with the public;
- maintaining mechanical or electronic equipment; or
- inspecting equipment, structures, or materials.

While deciding how to characterize an occupation is necessarily somewhat subjective, these criteria look pretty reasonable. Moreover, maintaining a consistent definition of occupations in which workers have the ability to work at home makes it easier to compare one study to another.

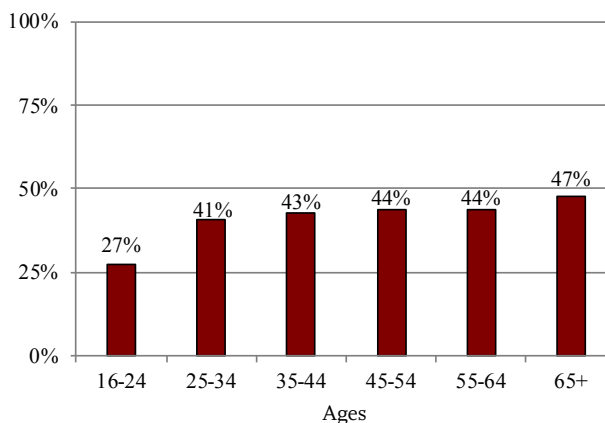
In addition to defining the occupations, the Dingel/Neiman study merges this information with the U.S. Bureau of Labor Statistics (BLS) employer survey, which provides information on the number and wages of workers in each occupation.<sup>1</sup> Their results reveal that only 37 percent of U.S. jobs can be performed entirely at home. Second, these jobs account for 46 percent of all wages, which means they are higher-paying jobs.

## How Does the Ability to Work at Home Vary by Age?

While the BLS employer survey provides information about the number of employees in the “work-from-home” occupations and their wages, it offers no data on their demographic characteristics. For this information, we turn to the CPS’s *Annual Social and Economic Supplement* (ASEC) for 2018.<sup>2</sup> Once again, the process involves determining whether each individual in the annual survey is in a Dingel/Neiman “work-from-home” occupation and then tallying the results by the relevant characteristic. This process yields a slightly higher percentage of workers in occupations where working at home is a possibility – 41 percent as opposed to the Dingel/Neiman 37 percent – but the story is basically unchanged.

The results by age suggest that older workers are as well situated as younger workers. If anything, the percentage with potential “work-from-home” jobs increases slightly with age, even if focusing only on workers 25 and over (see Figure 1).

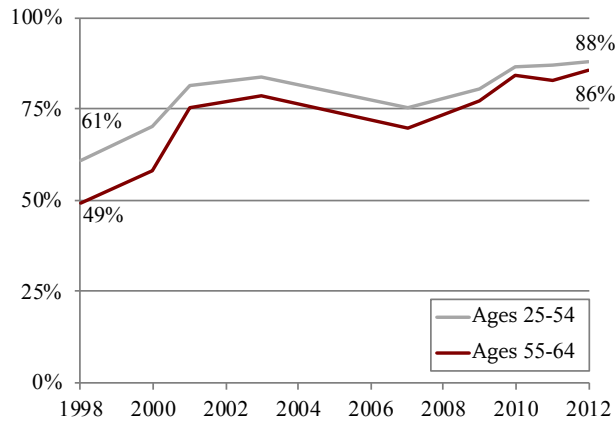
FIGURE 1. PERCENTAGE OF WORKERS WITH JOBS THAT CAN BE PERFORMED REMOTELY, BY AGE, 2018



Sources: Authors’ calculations using the U.S. Census Bureau, *Current Population Survey, Annual Social and Economic Supplement* (CPS ASEC) (2019) and Dingel and Neiman (2020).

These results say nothing about employees' comfort level with working remotely. But given the enormous increase in technological competence among older workers (see Figure 2), the occupational characteristics probably provide a pretty good picture of the feasibility of working from home.

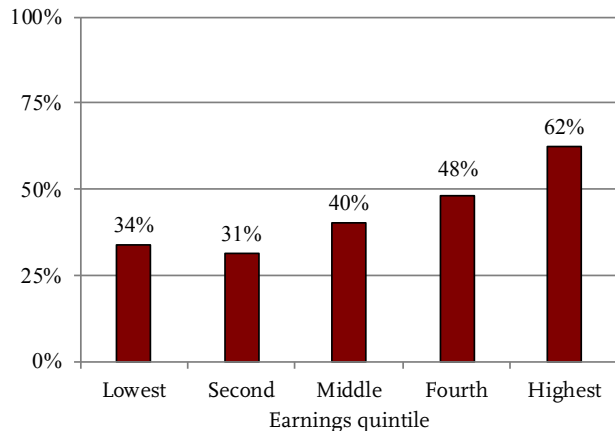
FIGURE 2. PERCENTAGE OF WORKERS WHO USE COMPUTERS, BY AGE, 1998-2012



Source: Belbase and Chen (2019).

The results from the CPS also confirm the Dingel/Neiman finding that the ability to work remotely is related to earnings. As shown in Figure 3, the percentage of workers in occupations where they can work

FIGURE 3. PERCENTAGE OF WORKERS AGES 25+ WITH JOBS THAT CAN BE PERFORMED REMOTELY, BY EARNINGS, 2018



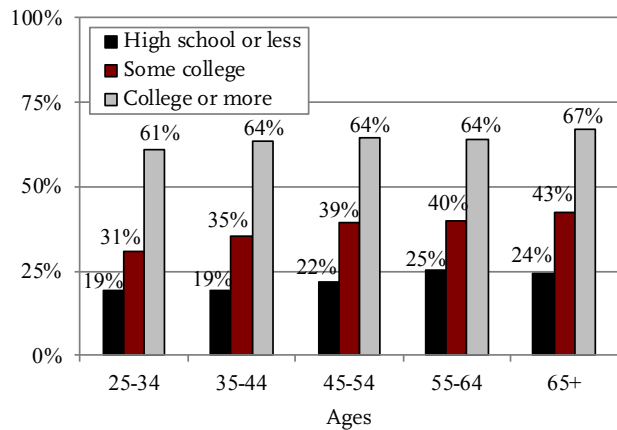
Sources: Authors' calculations using CPS ASEC (2019) and Dingel and Neiman (2020).

remotely rises from about 30 percent for the lower earnings quintiles to about 60 percent for the top quintile. The relatively high percentage in the lowest quintile likely reflects the large number of contractors and freelancers in remote work jobs. Many of these individuals are not working the full year and, thus, have lower annual earnings.

## Additional Results for Education and Gender

The positive relationship between earnings and ability to work remotely suggests that education plays a major role. Indeed, as shown in Figure 4, for any age group, the ability to work remotely is dramatically higher for those with a college degree or more than for those with a high school diploma or less. This pattern is virtually identical across age groups.

FIGURE 4. PERCENTAGE OF WORKERS WITH JOBS THAT CAN BE PERFORMED REMOTELY, BY AGE AND EDUCATION, 2018

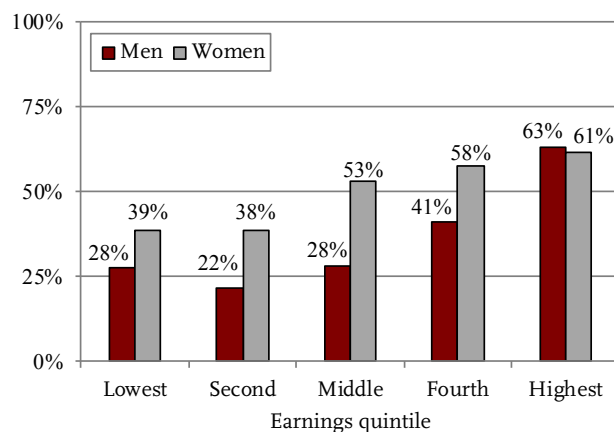


Sources: Authors' calculations using CPS ASEC (2019) and Dingel and Neiman (2020).

The final interesting finding is the pattern by gender. The share in occupations that can be done remotely is much higher for women than men (see Figure 5 on the next page). This finding is consistent with the literature showing that women are more likely to opt to work in jobs with more flexibility.<sup>3</sup> Such jobs can often be done at home, are part-time, or do not require working the full year (indicating contract or freelance jobs). On the other hand, contractors and

freelancers may also be the first to get laid off, which may explain why the unemployment rate for women is currently higher than for men.

FIGURE 5. PERCENTAGE OF WORKERS AGES 25+ WITH JOBS THAT CAN BE PERFORMED REMOTELY, BY EARNINGS AND GENDER, 2018



Sources: Authors' calculations using CPS ASEC (2019) and Dingel and Neiman (2020).

## Conclusion

If one's starting assumption was that older workers were less likely to work in occupations that can be done remotely, then the findings by age are indeed good news. On the other hand, the fact that about 55 percent of older workers cannot work remotely means that many may face re-entering what they view as unsafe work environments. And, given that low-paid workers are less likely to be in occupations where they can work remotely, the opening up of the economy means that they will face either the health risk of returning to work before the virus is under control or the economic risk of exhausting their resources.

## Endnotes

- 1 U.S Bureau of Labor Statistics (2020).
- 2 The linkages are done by converting the BLS SOC code to ACS occupation code and then to the IPUMS CPS occ2010 code.
- 3 See Goldin (2014).

## References

- Belbase, Anek and Anqi Chen. 2019. "How Did Computerization since the 1980s Affect Older Workers?" *Issue in Brief* 19-19. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Dingel, Jonathan I. and Brent Neiman. 2020 "How Many Jobs Can Be Done at Home?" Working Paper No. w26948. Cambridge MA: National Bureau of Economic Research.
- Goldin, Claudia. 2014. "A Grand Gender Convergence: Its Last Chapter." *American Economic Review* 104(4): 1091-1119.
- U.S. Bureau of Labor Statistics. 2020. *Occupational Employment Statistics*. Washington, DC. Available at: [https://www.bls.gov/oes/current/oes\\_nat.htm](https://www.bls.gov/oes/current/oes_nat.htm)
- U.S. Census Bureau. *Current Population Survey, Annual Social and Economic Supplement*, 2019. Washington, DC.

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