



Economic Bulletin

Were Teleworkable Jobs Pandemic-Proof?

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September 30, 2020

While the majority of pandemic-related job losses have been in occupations where working from home was not possible, work-from-home or “teleworkable” jobs were not pandemic-proof. In addition, the number of teleworkable jobs lost and recovered differed by workers’ sex and education status. Both college-educated and non-college-educated women experienced larger employment losses and slower recoveries in teleworkable jobs than their male counterparts.

Although U.S. labor market conditions have been improving since businesses started to reopen in May, total employment in August remained well below pre-pandemic levels, with more than 9 million jobs yet to recover. These losses likely differed across occupations: although many workers could no longer work at businesses such as restaurants or retail stores while shutdown orders were in place, others could continue to perform their business and financial services jobs remotely. Were job losses and subsequent gains concentrated in jobs where working from home was not possible?

To answer this question, we focus on pandemic-related employment changes among prime-age (25–54) individuals, who account for the largest share of employed working-age individuals. Following a new classification by Dingel and Neiman (2020), we group occupations into two categories based on whether they are “teleworkable”—that is, whether workers in these occupations can potentially perform their duties from home.^[1] Teleworkable jobs are concentrated in business and financial operations, education and training, and office and administrative support occupations, while non-teleworkable jobs are concentrated in management, healthcare, production, and sales occupations. Table 1 shows that prior to the pandemic, more than one-third of prime-age workers were employed in occupations that could potentially be performed from home.

Table 1: Prime-Age Employment in Teleworkable and Non-teleworkable Jobs

Months	Non-teleworkable (in millions)	Teleworkable (in millions)	Non-teleworkable share (percent)	Teleworkable share (percent)
February	64.9	36.2	64.2	35.8
February-April (change)	-10.9	-2.4	82.1	17.9
April-August (change)	5.5	1.1	83.6	16.4
February-August (change)	-5.4	-1.3	80.5	19.5
Recovered share (percent)	50.4	45.2	-	-

Sources: U.S. Census Bureau and authors' calculations.

Teleworkable jobs accounted for only a small share (17.9 percent) of pandemic-related job losses for prime-age individuals and recovered along with labor market conditions after April (Table 1). From February to April, prime-age workers lost 2.4 million teleworkable jobs. By August, they had regained about 1.1 million of these jobs—about 45.2 percent of teleworkable jobs lost. Non-teleworkable jobs accounted for a much greater share (82.1 percent) of job losses, and these jobs have been slightly faster to recover. From February to April, prime-age individuals lost almost 11 million non-teleworkable jobs. By August, they had recovered 5.5 million (50.4 percent) of these jobs.

In addition to telework capability, pandemic-related job losses and recoveries differed by workers' sex and education status. Prime-age individuals without a bachelor's degree, especially women, faced disproportionately larger job losses than their college-educated counterparts. Non-college-educated women accounted for 24 percent (24.6 million) of all employed prime-age individuals in February but experienced more than half (3.5 million) of net job losses from February to August. Table 2 shows non-college-educated women experienced the greatest job losses (5.6 million) of any group from February to April. However, by August, they had recovered only 36.3 percent of these jobs—the lowest share among any group. In contrast, college-educated women lost 1.5 million jobs between February and April but had recovered 68.8 percent of them by August. Non-college men also experienced a larger decline and a slower rebound in employment than their college-educated counterparts, though the discrepancy between the two groups was much smaller than for women.

Table 2: Prime-Age Employment by Sex and Education

Job type	Non-college women (in millions)	College women (in millions)	Non-college men (in millions)	College men (in millions)
All				
February	24.6	23.1	31.9	21.5
February-April (change)	-5.6	-1.5	-4.8	-1.3
February-August (change)	-3.5	-0.5	-2.2	-0.5
Recovered share (percent)	36.3	68.8	54.8	63.1
Non-teleworkable				
February	16.5	10.5	27.4	10.6
February-April (change)	-4.5	-0.8	-4.3	-1.2
February-August (change)	-2.6	-0.1	-2.0	-0.7
Recovered share (percent)	42.5	91.3	52.7	42.8
Teleworkable				
February	8.1	12.6	4.6	10.9
February-April (change)	-1.1	-0.7	-0.6	-0.1*
February-August (change)	-1.0	-0.4	-0.2	0.2
Recovered share (percent)	10.4	41.1	70.4	508.6

*Rounded down from an actual loss of 57,000.

Note: Calculations for recovered shares use employment numbers in thousands.

Sources: U.S. Census Bureau and authors' calculations.

Both college-educated and non-college-educated women experienced disproportionately larger employment losses in teleworkable jobs during the downturn than men (Table 2). Among college-educated individuals, college women held about half (12.6 million) of teleworkable jobs in February but accounted for all of the net job losses from February to August. In fact, college men gained about 0.2 million (231,000) teleworkable jobs over this period. Likewise, among non-college-educated individuals, non-college women held around two-thirds (8.1 million) of teleworkable jobs in February but accounted for 85 percent (1 million) of teleworkable job losses as of August. Overall, both college and non-college women held more teleworkable jobs in February and have experienced disproportionately greater job losses and slower recoveries in these jobs than their male counterparts.

In sum, our analysis shows that the majority of employment losses among prime-age individuals from February to April were in non-teleworkable jobs, though teleworkable jobs also saw losses over the same period. After April, employment recovered at a similar pace in both teleworkable and non-teleworkable jobs. However, the pace of recovery differed by workers' sex and education status. In earlier research, we show that unlike previous recessions, women have lost disproportionately more jobs

during this downturn (Tüzemen and Tran 2020). In this article, we show that non-college women have lost disproportionately more jobs in both teleworkable and non-teleworkable categories than their male counterparts. In addition, both college-educated and non-college educated prime-age women experienced larger losses and slower recoveries in teleworkable jobs than their male counterparts.

These results have implications for prime-age labor market outcomes more generally. From 2015 to 2019, women drove the rebound in prime-age labor force participation (Tüzemen and Tran 2019). However, the recent pandemic has led to the sharpest declines in employment and the labor force participation rate of prime-age women on record. Although the current labor market recovery is nascent, early evidence on the slow pace of employment recovery for non-college-educated women points to a slow rebound in prime-age labor market outcomes.

Endnotes

- [1] The shares of workers in each category correlate well with estimates from the Bureau of Labor Statistics (BLS) of the share of workers who worked from home during May and June. Starting in July, the share of workers who worked from home declined in the BLS estimates, as some workers in teleworkable jobs possibly returned to workplaces.
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