

Trends and Disparities in Teleworking During the COVID-19 Pandemic in the USA: May 2020–February 2021



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BACKGROUND

During the COVID-19 pandemic, many workplaces closed and some workers were able to telework for the first time. Disparities in who remained in workplaces may have contributed to COVID-19 disparities.¹

One study identified an association between inability to telework and SARS-CoV-2 infection.² Pre-pandemic, whites worked remotely more frequently than minorities.³ Trends in teleworking during the pandemic are less clear, however, as are the implications of such disparities for members of workers' households at increased risk of severe COVID-19.

METHODS

We analyzed the May 2020–February 2021 Current Population Surveys (CPS) (obtained via IPUMS⁴) which asked: “At any time in the last 4 weeks, did (you/name) telework or work at home for pay because of the coronavirus pandemic?” (Workers already working from home before the pandemic were categorized “no”).

We examined monthly trends in teleworking among adults 18–64 years who had a job and were at work the preceding week, and differences in teleworking in May 2020 and February 2021 by workers' region; age; sex; race/ethnicity; immigration status; education; family income; and disability status. We examined differences by presence in workers' households of individuals at elevated risk of severe COVID-19, including disabled individuals (among workers themselves not disabled) and adults ages ≥ 65 , 75, or 85 years.

We used STATA/SE 16.1, CPS' weights, Davern's method⁵ to calculate approximate standard errors,⁶ and Pearson's chi-square tests.

RESULTS

Our sample included $n=410,248$ individuals. Figure 1 shows employment trends by telework status. In May 2020, a weighted 45.2 million workers (37.6% of those at work) were teleworking due to the COVID-19 pandemic, while 74.9 million (62.4%) were not newly teleworking. The number working but not teleworking rose to 105.3 million in October 2020, falling slightly to 102.1 million in February 2021, when 31.3 million were teleworking (23.5% of those employed).

In February 2021, the 5 jobs with the most teleworkers were managers, software developers, elementary/middle school teachers, accountants/auditors, and customer service representatives. The jobs with the most individuals working (but not teleworking) were driver/sales workers and truck drivers; managers; nurses; first-line supervisors/managers of retail sales workers; and retail sales person.

Table 1 presents characteristics of teleworkers in May 2020 and February 2021. In both months, workers in New England were most likely to be teleworking, while those in East South Central states least likely ($p<0.01$). Black and Hispanic, compared to white workers, were less likely to be teleworking in both months; those of other/multiple race were more likely ($p<0.01$).

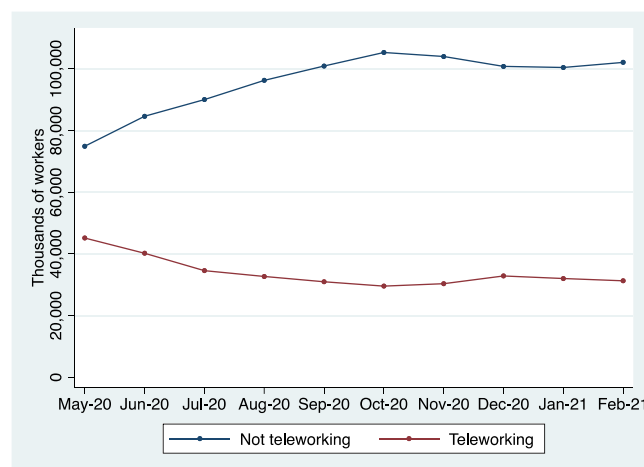


Fig. 1 Trends in teleworking due to COVID-19 among workers aged 18–64, May 2020–February 2021 (unweighted $n=410,248$). Note: Figure estimates are weighted to be nationally representative. Individuals who telecommute, but who are not teleworking due to the COVID-19 pandemic, are classified as “not teleworking for COVID-19.” Figures only include current workers (defined as having a job in the previous week).

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Table 1 Percentage of Employed Individuals Teleworking due to COVID-19 by Individual and Family Characteristics, May and November 2020

	May 2020 (n=35,436)	February 2020 (n=43,802)
Census region/division		
New England	47.2	35.0
Middle Atlantic	46.4	30.3
East North Central	36.5	22.4
West North Central	33.1	19.9
South Atlantic	36.6	20.9
East South Central	27.5	14.4
West South Central	33.2	18.1
Mountain	35.9	21.3
Pacific	40.7	28.8
<i>p value</i>	<0.01	<0.01
Age		
Age 18–24	20.2	9.5
Age 25–54	40.5	25.8
Age 55+	36.2	23.2
<i>p value</i>	<0.01	<0.01
Race/ethnicity*		
Non-Hispanic White	40.6	25.1
Non-Hispanic Black	30.9	20.6
Hispanic	24.3	13.8
Non-Hispanic Other/Multiple	51.4	35.3
<i>p value</i>	<0.01	<0.01
Sex		
Male	32.2	21.1
Female	44.0	26.1
<i>p value</i>	<0.01	<0.01
Immigrant status†		
Not immigrant	38.6	23.8
Immigrant	33.0	21.9
<i>p value</i>	<0.01	<0.01
Education		
HS or less	12.6	6.3
Some college	25.0	14.3
BA +	62.3	41.9
<i>p value</i>	<0.01	<0.01
Income		
<\$25K	17.2	8.6
\$25–\$49K	20.2	10.7
\$50–\$74	28.7	17.1
\$75–99K	36.4	21.4
\$100–\$14	44.9	29.5
\$150K+	57.3	41.6
<i>p value</i>	<0.01	<0.01
Functional disability‡		
No difficulty	37.9	23.5
Has difficulty	28.9	21.6
<i>p value</i>	<0.01	0.17
Family size		
< 6	38.6	24.1
≥6	22.7	12.0
<i>p value</i>	<0.01	<0.01
Oldest household (HH) adult		
Oldest HH adult < 65 years	38.4	23.9
Oldest HH adult ≥65 years	29.8	19.3
<i>p value</i>	<0.01	<0.01
Oldest HH adult < 75 years	37.9	23.5
Oldest HH adult ≥75 years	28.8	20.5
<i>p value</i>	<0.01	0.04
Oldest HH adult < 85 years	37.7	23.5
Oldest HH adult ≥85 years	33.6	23.4
<i>p value</i>	0.25	0.98
Disabled individual in household§		
None	38.7	24.0
1+	28.2	17.2
<i>p value</i>	<0.01	<0.01

HH household

*We simplified the CPS' self-reported race variable into three categories: White, Black, and Other (including individuals of multiple races), and created a fourth category to indicate Hispanic individuals of any race

†Immigrants defined as those "foreign born" regardless of citizenship status; a small number coded as unknown birth place/parentage were excluded. Foreign born includes those born in outlying US possessions/territories. Number analyzed: n=35,409 in May and n=43,762 in February

‡Defined as those with one or more of 6 disabilities: difficulties hearing, difficulties seeing (even with corrective lenses), cognitive difficulties, serious difficulties with walking or stairs, condition lasting 6+ months impeding basic activities outside home without aid, condition lasting 6+ months impeding care of personal needs inside the home

§Defined same as functional disability. These analyses exclude workers who themselves have a disability. Number analyzed: n=34,298 in May and n=42,370 in February

Men, immigrants, and workers with less education or lower incomes were less likely to be teleworking ($p < 0.01$). For instance, in February, 41.6% of those with family incomes $\geq \$150,000$ teleworked due to COVID-19 vs. 8.6% of those earning $< \$25,000$.

Workers in large (vs. smaller) families were less likely to be teleworking in both months ($p < 0.01$). Workers in households with one or more adults ≥ 65 years were also less likely to be teleworking ($p < 0.05$), as were workers with disabilities (in May) and those living with disabled individuals ($p < 0.01$).

CONCLUSIONS

Up to 30 million individuals may have returned to the workplace after the initial COVID-19 wave. There were disparities in who remained in the workplace, and implications for families: those employed but not teleworking lived in larger families and were more likely to live with individuals at increased risk of severe COVID-19.

Our findings complement analyses suggesting that occupational exposures contributed to COVID-19 disparities,^{1, 2} and that teleworking (and workplace closures for “non-essential” jobs that cannot be performed from home) may have been underutilized during the pandemic, especially during the severe surge this winter. For physicians, these findings underscore the importance of occupational history in assessing COVID-19 risk, not merely of patients but of their family members.

Our study has limitations. CPS’ definition of teleworking excludes those teleworking prior to COVID-19, causing us to underestimate the prevalence of teleworking and disparities in teleworking.³ We do not know whether those reporting teleworking were working from home at all times, or only sometimes. We also lacked data on COVID-19 incidence in our sample.

Workplace closures are an important public health intervention in the face of respiratory pandemics. Policies should increase equity in teleworking during pandemics, ensure

support for displaced workers, and mandate adequate protections for those who remain in the workplace.

Adam W Gaffney, MD, MPH^{1,2}
David U. Himmelstein, MD^{1,2,3}
Steffie Woolhandler, MD, MPH^{1,2,3}

¹Cambridge Health Alliance,
Cambridge, MA, USA

²Harvard Medical School,
Boston, USA

³City University of New York at Hunter College,
New York, USA

Corresponding Author: Adam W Gaffney, MD, MPH; Cambridge Health Alliance, Cambridge, MA, USA (e-mail: agaffney@challiance.org).

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