

Remote Work and the Heterogeneous Impact of COVID-19 on Employment and Health

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Introduction

Remote and Non-Remote Work

- ▶ Social distancing is more difficult in non-remote jobs.
- ▶ Anti-COVID-19 policies may differentially harm non-remote workers.
- ▶ Since non-remote workers have lower SES, the shock may increase inequality.
- ▶ Non-remote workers face a stark tradeoff between employment and health.

This Paper

Data

- ▶ UAS COVID-19 panel with quarterly employment data from 2019.
- ▶ Remote and non-remote job types identified in mid-March 2020.
- ▶ Employment, perceived COVID-19 infection risk, respiratory symptoms, protective behaviors.

Analysis

- ▶ Impacts on employment and health by job type.
- ▶ Examine heterogeneity by baseline household income.
- ▶ Protective behavior by job type and employment status.
- ▶ The impact of statewide reopenings using RD and D-in-D approaches.

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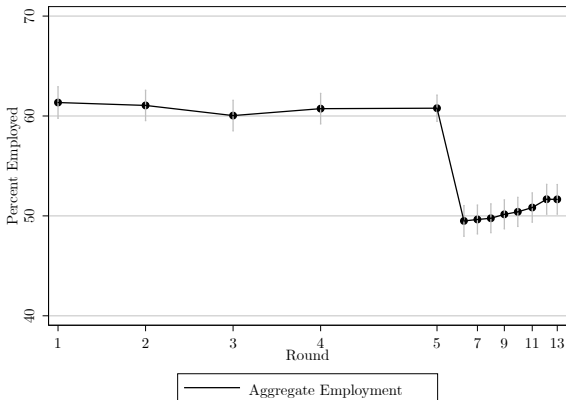
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The Impact on Aggregate Employment



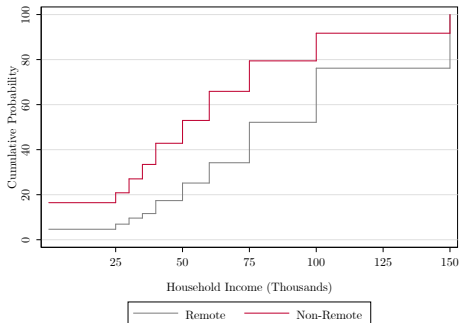
- ▶ **Rounds 1-4:** Quarter 1-Quarter 4 of 2019.
- ▶ **Round 5-13:** biweekly COVID-19 panel rounds for March-July 2020.
- ▶ Includes all adults regardless of labor force participation (90% confidence intervals).
- ▶ Comparable to BLS official statistics and CPS estimates.

Job Types

Measurement

- ▶ “Do you have the kind of job where working from home is an option?”
- ▶ The distinction between potential and realized remote work.
- ▶ Complements existing approaches that rely on commuting patterns or score occupations by the propensity for remote work.
- ▶ Measured in March 2020, before the wave of job losses.

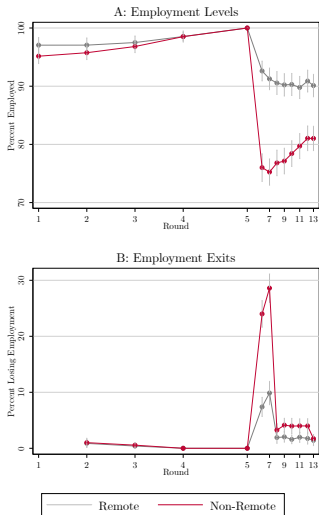
Characteristics by Job Type



Remote workers:

- ▶ Have higher household income.
- ▶ Are 42 percentage points more likely to have a college degree.
- ▶ Are 3 percentage points less likely to be African American
- ▶ Are 7 percentage more likely to be “other race” (e.g. Asian American).
- ▶ Have a similar gender distribution to non-remote workers.

Impact on Employment by Job Type



Interpretation

Identification

- ▶ No differential pre-trends overall or by job type.
- ▶ Two distinct employment questions to minimize measurement error.

Magnitudes

- ▶ 18 percent of workers lost their jobs between mid-March and early April 2020.
- ▶ 9% of remote workers and 25% of non-remote workers lost jobs on net.
- ▶ Many non-remote workers regained jobs in subsequent weeks.
- ▶ The non-remote impact exceeds the differential impact for women, non-college graduates, or Hispanics ($p < 0.10$). It is larger but not significantly different from the impact for African Americans.

Health

- ▶ A small relative increase in respiratory symptoms and a larger increase in perceived COVID-19 risk for non-remote workers from April-July.

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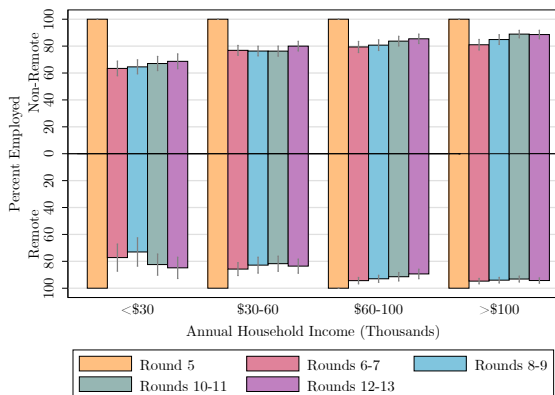
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Estimates by Predetermined Household Income



- ▶ 40% of the poorest non-remote workers lost jobs, compared to 5% of the wealthiest remote workers.
- ▶ Less stark health patterns by income bin (not shown).

Are Non-Remote Workers More Exposed to COVID-19?

Comparison

- ▶ Among the previously employed, compare workers who kept or lost jobs.
- ▶ Compare remote and non-remote job types.

Data

- ▶ The survey includes 13 self-reported protective behaviors.
- ▶ Distinguish between work-related and non-work-related behaviors.

Findings

- ▶ Non-remote workers who remain employed practice fewer work-related protective behaviors than unemployed non-remote workers or remote workers.
- ▶ Both groups practice similar non-work-related protective behaviors.

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Table 4: Protective Behavior by Employment Status and Job Type

	Protective Behavior	
	Unrelated to Work	Related to Work
	(1)	(2)
<u>A: Unemployed Sample</u>		
Remote	0.66	0.62
Non-Remote	0.66	0.56
Remote – Non-Remote	0.0067 (0.015)	-0.061*** (0.020)
<u>B: Employed Sample</u>		
Remote	0.66	0.62
Non-Remote	0.66	0.45
Remote – Non-Remote	0.00074 (0.0055)	-0.17*** (0.0094)
Difference in Difference	-0.0060 (0.016)	-0.11*** (0.022)
Observations	20,004	20,004

Is Reopening an Effective Policy Response?

Background

- ▶ All states except SD closed non-essential businesses around early April.
- ▶ States reopened between April 20 and June 5.

Impact on Employment and Health

- ▶ Difference-in-difference: compare states that reopened early vs. late.
- ▶ Event study (not shown): examine outcomes immediately after reopening.

Is Reopening an Effective Policy Response?

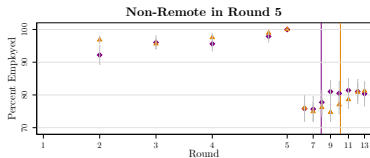
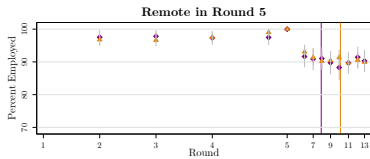
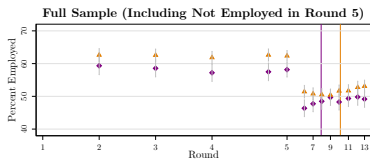
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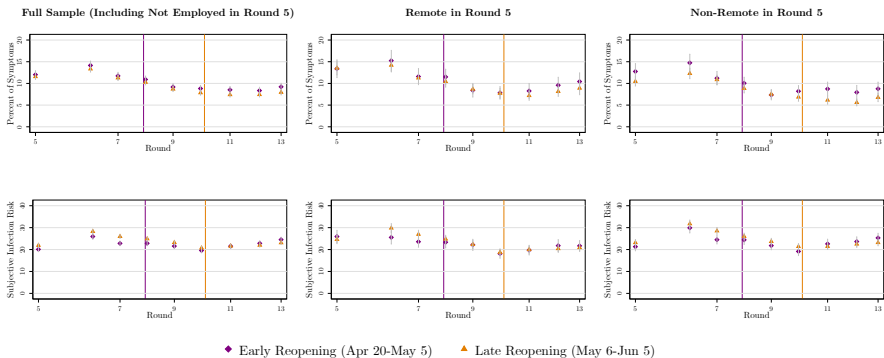
Employment Patterns



◆ Early Reopening (Apr 20-May 5)

▲ Late Reopening (May 6-Jun 5)

Health Patterns



Conclusion

- ▶ COVID-19 has differentially impacted non-remote employment and health.
- ▶ These workers face a stark tradeoff between employment and health.
- ▶ Policies to reopen businesses appear to modestly improve employment and worsen health for non-remote workers.