

Change in Work Arrangements during the COVID-19 Pandemic: A Large Shift to Remote Work and Hybrid Work

SCAG | 33rd Annual Demographic Workshop

September 21, 2022

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Since 2020, the COVID-19 pandemic has caused huge impacts on society through...

...modifications in activity organization

...impacts on employment and travel



...the increased reliance on ICT solutions, including e-shopping





UC Davis COVID-19 Mobility Study

- Research on temporary vs. longer-term impacts of the pandemic
- Targeted data collections in 15 regions of the United States and two regions in Canada
- Starting in Fall 2020, special focus on SCAG region

Previous 2018/2019 data

Information on many topics, e.g.

- Household organization
- Telecommuting patterns
- E-shopping behaviors
- Travel patterns
- Vehicle ownership
- Emerging delivery services
- Personal attitudes and preferences

Pre-Pandemic

- Shared mobility adoption
- Propensity towards AVs

COVID-19 Spring 2020 data

Data collection on:

- Impacts of the COVID-19 on lifestyles
- **Employment and activities**
- Household organization and child care
- E-shopping behaviors
- Emerging delivery services
- Current travel patterns
- Vehicle ownership
- Shared mobility adoption
- Personal attitudes and preferences

COVID-19 Fall 2020 data

- Sampling Method: Recall of participants from previous surveys:
- Recruitment Method: Direct e-mail
- Valid Emails for Recontact: 9980.
- Response Rate: 33.5%
- Incentives: \$10 gift card from Amazon, Starbucks, Target or Walmart to each respondent
- Survey administration: Dec. 2020 Jan. 2021

COVID-19 Summer 2021 data

- Sampling Method: Multiple recruitment channels
- Recruitment Method: Direct email + mailing out paper questionnaire
- Sample Size: 14,084 (includes partially completed surveys)
- Response Rate: 24.6%
- Incentives: \$5 gift card
- Survey Administration: July --Sep. 2021

COVID-19 Fall 2022 data

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COVID-19

Sampling Method: Recall of participants + new recruitments

MOBILITY STUDY

- Recruitment Method: Direct email + mailing out paper questionnaire
- Target Sample Size: 6,000+
 - Focus on CA with recruitment in major US cities
- Survey Administration: Oct. Dec. 2022

During COVID-19 Pandemic

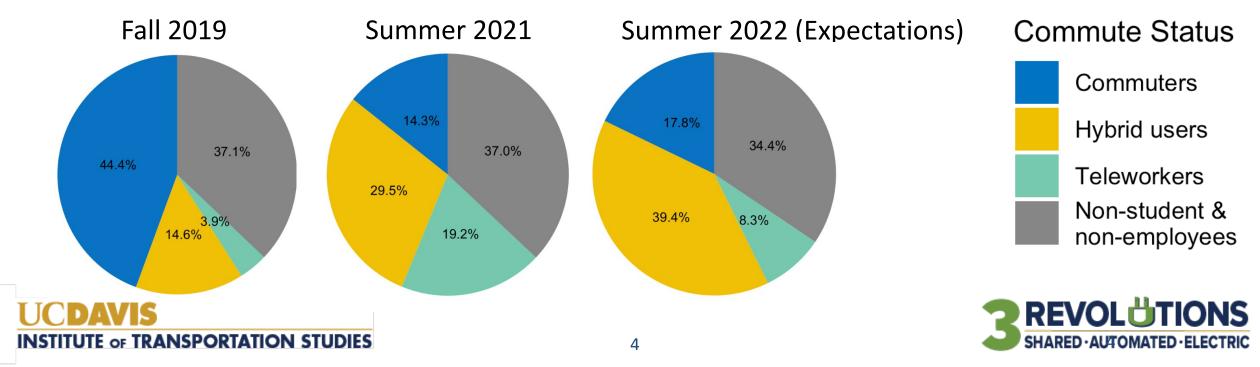
"Post-Pandemic"?





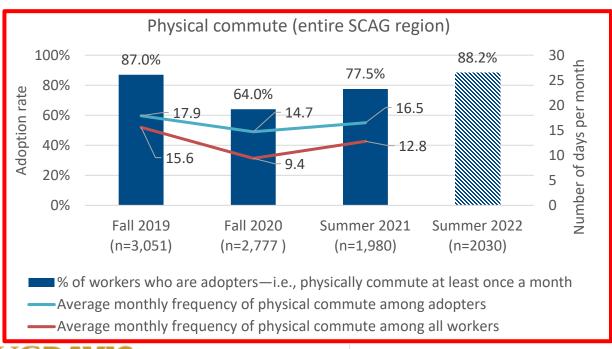
A Large Shift to Teleworking and Hybrid Work

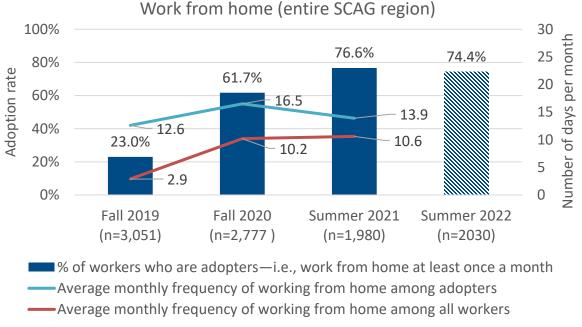
- As of Summer 2021, the percentage of respondents who adopted hybrid work to some degree was approximately double than in the pre-pandemic period.
- Conversely, the proportion of respondents that worked entirely at the workplace was much lower than before the pandemic.
- A significant portion of respondents expect to continue to engage in hybrid work.



Changes in the Frequency of Physical Commutes and Remote Work

- The percentage of those who commute at least once a month decreased during the pandemic but bounced back by 2021.
- However, the average number of days on which workers commuted to their workplace (16.5 commuting days per month in summer 2021) remained below pre-pandemic levels (17.9 commuting days).
- This translates in an average of approximately **12.8 commuting days per month** among all workers in summer 2021 vs. **15.6 commuting days per month** before the pandemic.



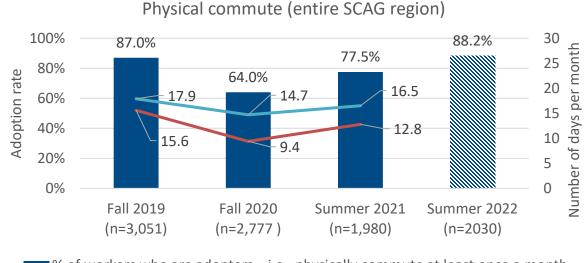




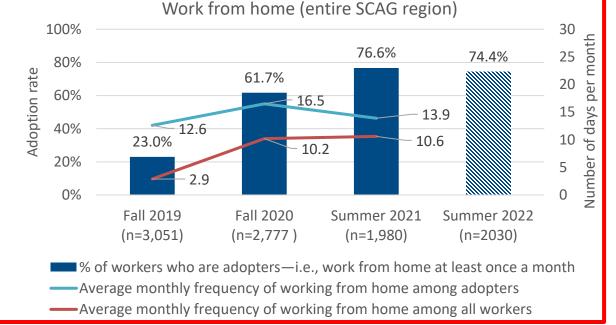


Changes in the Frequency of Physical Commutes and Remote Work

- The percentage of those who work from home at least once a month continued to increase during the various stages of the pandemic.
- Among those who worked remotely at least once a month, the frequency of working from home increased during the pandemic to about 16.5 days/month in Fall 2020, later declining to 13.9 days/month by Summer 2021.
- The average number of "teleworked days" remained high at about 10 days/month per worker.



- makes who are adopters—i.e., physically commute at least once a month
- —Average monthly frequency of physical commute among adopters
- —Average monthly frequency of physical commute among all workers

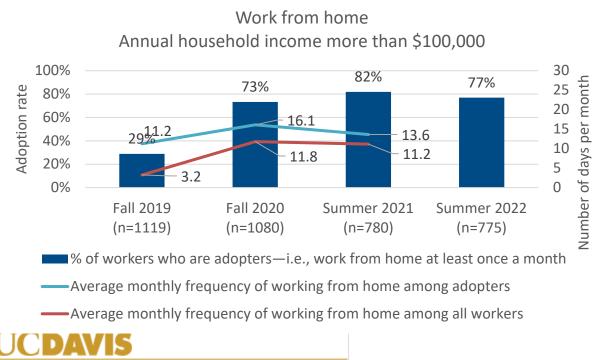




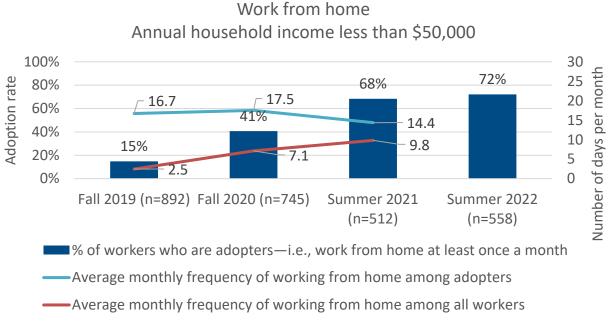


Higher-income workers are more likely to work remotely

- Rates of adoption of remote work were the highest in the high-income group and the lowest in the low-income group before the pandemic.
- These rates of adoption also increased, from fall 2019 to fall 2020, by the most and the least, respectively, in the high- and low-income groups: +44 vs.
 +26 percentage points.



INSTITUTE OF TRANSPORTATION STUDIES



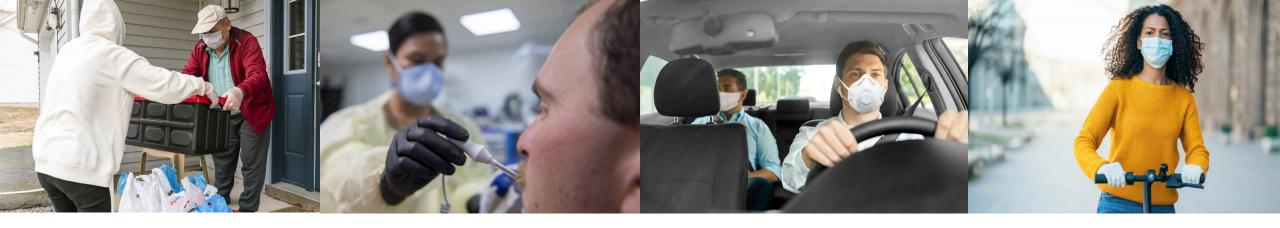


Policy Implications: How to build back better

- In addition to studying worker' preferences towards remote or hybrid work, understanding employers' perspectives would be essential to study the evolution of work organization.
- Transportation agencies need to adjust transportation options and improve
 accessibility for various groups, e.g. those who have transitioned to hybrid work who
 commute more rarely and need different fare systems, vs. those that continue to
 depend on physical commutes.
- With the reduced commuting trips and peak-hour travel, transportation agencies should consider how to redistribute their planning efforts, services and resources, eventually with more balance between peak and non-peak time, and between regional and local services.
- Policy makers should try to encourage new trips made by single-occupant vehicles to be only a temporary change, and not a longer-lasting behavior.







More info on the UC Davis COVID-19 Mobility Study available at: postcovid19mobility.ucdavis.edu

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