



CAPITAL REGION CLIMATE READINESS COLLABORATIVE

COVID Response: Lessons for Climate Action

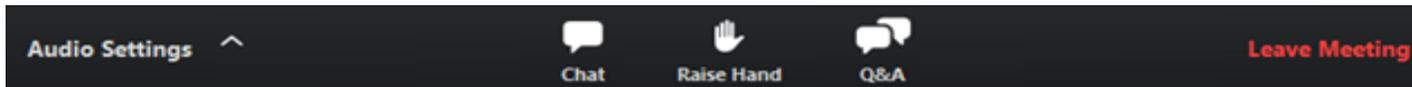
July 29, 2020 | 10:00 AM – 12:00 PM



Webinar Logistics

Q&A

- Submit questions for panelists through the Q&A module at any point during the webinar.
- Upvote questions that you are interested in hearing responses to.



Chat

- Engage in a dialogue with your peers – share resources, case studies, and best practices.
- Reach out to LGC staff if you encounter technical issues or have questions about CRC.

CRC Welcome



Meg Arnold

CRC Chair

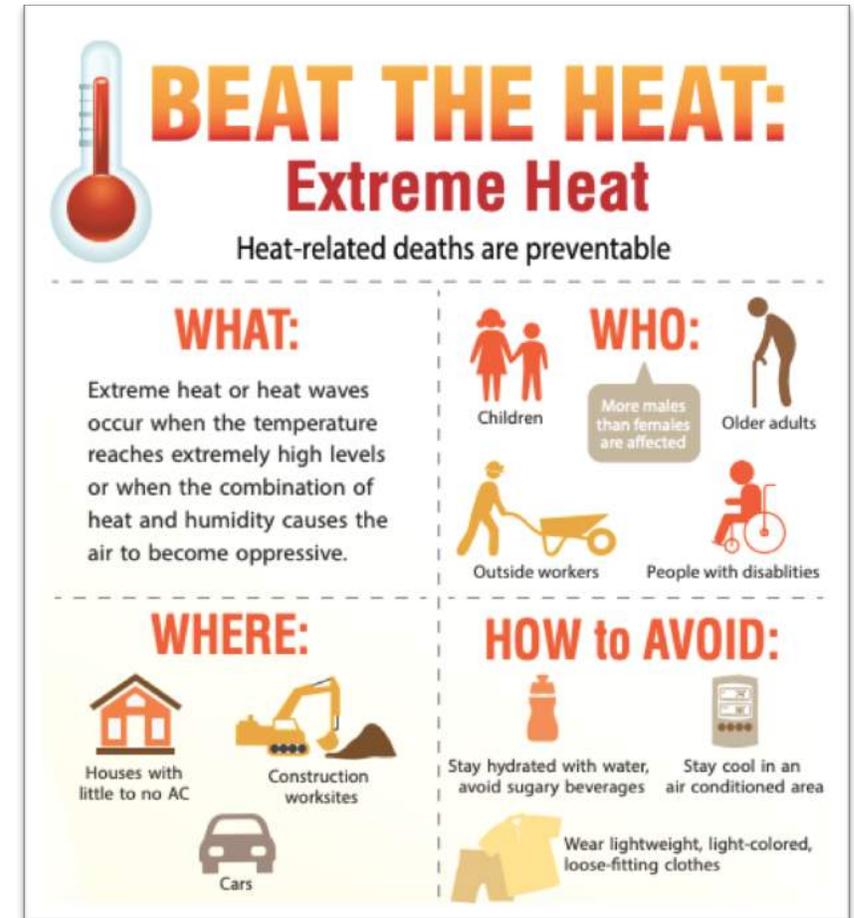


CAPITAL REGION
CLIMATE READINESS
COLLABORATIVE

CRC Heat PSA Campaign

Engagement Opportunity

- A flagship program of CRC, our Heat PSA Campaign runs from **July 27th through September 28th**
- Campaign shares resources and actionable strategies for building climate resilience with community members
- Please contact Catherine at cfoster@lgc.org if you're interested in being a partner!



Remote Work, GHG Emissions, and Air Quality: Seeking to Extend New Behaviors



Janice Lam

Program Manager
SMAQMD



Meg Arnold

Strategic Advisor
Valley Vision



Adrienne Moretz

Senior Analyst
SACOG

Sacramento Region COVID-19 Shelter-in-Place Air Quality Benefit Analysis



Janice Lam

Program Manager
SMAQMD



Sacramento Region COVID-19 Shelter-in-Place Air Quality Benefit Analysis

Capital Region Climate Readiness Collaborative
July 29th, 2020

Janice Lam Snyder, M.S.

Program Manager

Air Monitoring, Planning and Data Analysis

jlam@airquality.org

Patrick Zahn, M.S.

Project Manager

Sonoma Technology, Inc.

Studies linking COVID-19 and Air Quality

- COVID-19 global pandemic has affected air pollution emissions through shelter-in-place orders
- **Harvard study¹** to show a link between long term air pollution exposure and death or serious illness from COVID-19
- **UC Davis special report:** US traffic reduction has resulted in reduction in greenhouse gas (GHG) emissions

¹<https://projects.iq.harvard.edu/covid-pm>

²https://roadecology.ucdavis.edu/files/content/projects/COVID_CHIPs_Impacts_updated_430.pdf

New Research Links Air Pollution to Higher Coronavirus Death Rates



Atlanta on Saturday evening. The area is likely to suffer more deaths than the adjacent Douglas County, Ga. Kevin C. Cox/Getty Images



By [Lisa Friedman](#)

Published April 7, 2020 Updated April 17, 2020



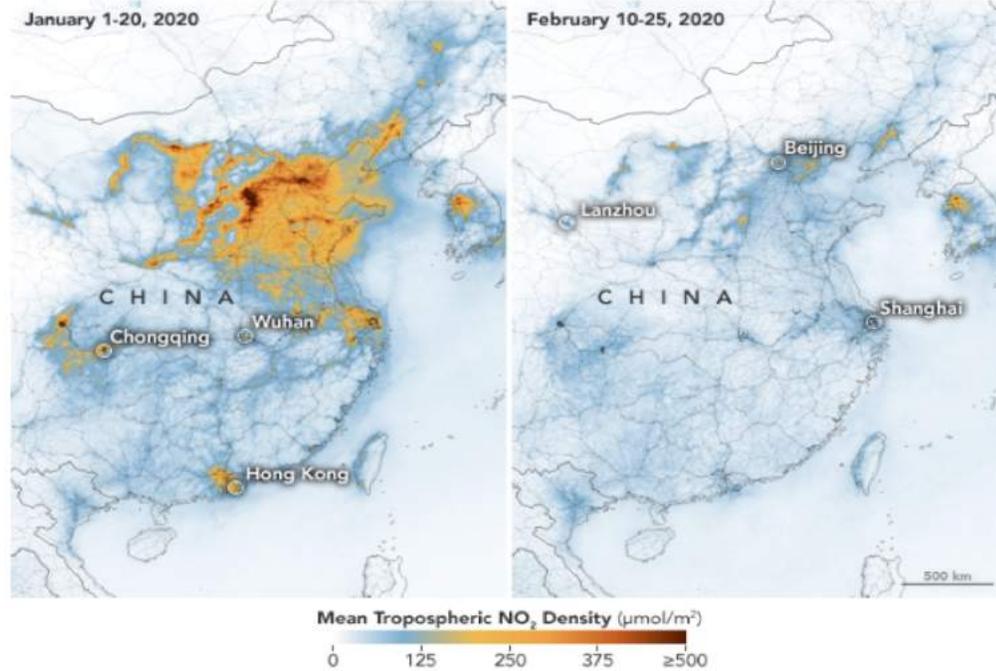
[阅读简体中文版](#) [阅读繁体中文版](#)

WASHINGTON — Coronavirus patients in areas that had high levels of air pollution before the pandemic are more likely to die from the infection than patients in cleaner parts of the country, according to a [new nationwide study](#) that offers the first clear link between long-term exposure to pollution and [Covid-19 death rates](#).

<https://www.nytimes.com/2020/04/07/climate/air-pollution-coronavirus-covid.html>

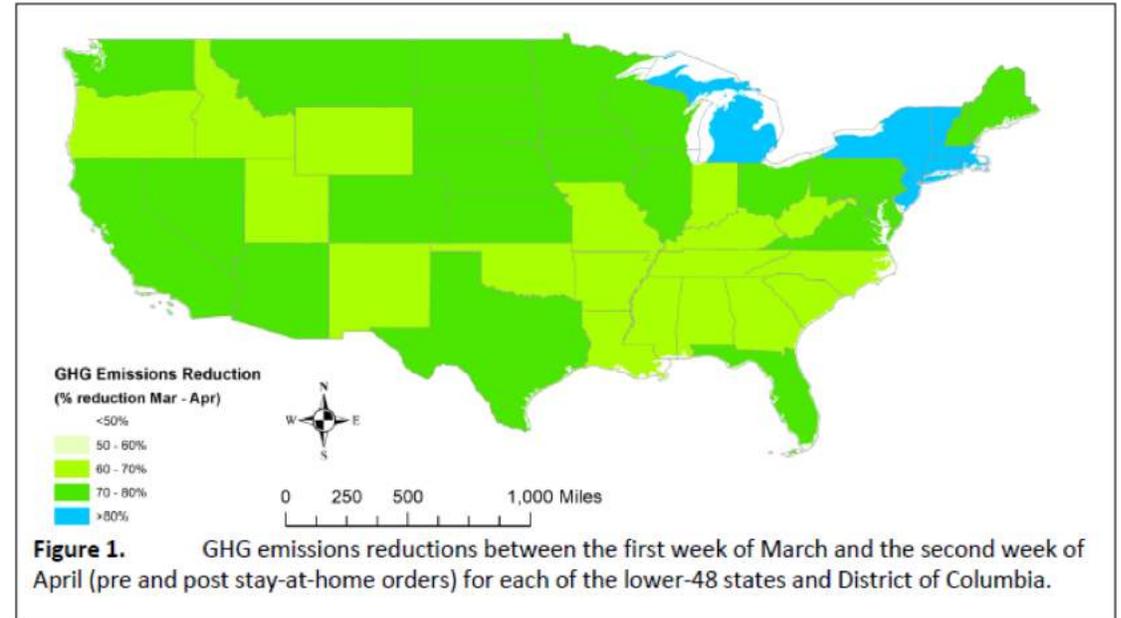
Silver Lining: Air and Climate Pollution Improvements

Reduction in traffic related emissions (NO_2 , $\text{PM}_{2.5}$, Ozone precursors, CO_2e) across the globe being investigated



<https://earthobservatory.nasa.gov/images/146362/airborne-nitrogen-dioxide-plummets-over-china?>

“..US greenhouse gas (GHG) emissions that cause climate change were reduced by 4% in total and by 13% from transportation in the almost 8 weeks since many stay-at-home orders went into effect.”



Reference: UC Davis Special Report 3: Impact of COVID19 Mitigation on Traffic, Fuel Use and Climate Change; Fraser Shilling, Ph.D.

https://roadeology.ucdavis.edu/files/content/projects/COVID_CHIPs_Impacts_updated_430.pdf

Untangling shelter-in-place AQ benefit from seasonal trend to inform future telework policy



Task 1: Determine whether the AQ during SIP period is cleaner than historical periods

Task 2: Did meteorology play a significant role in the improvement in air quality

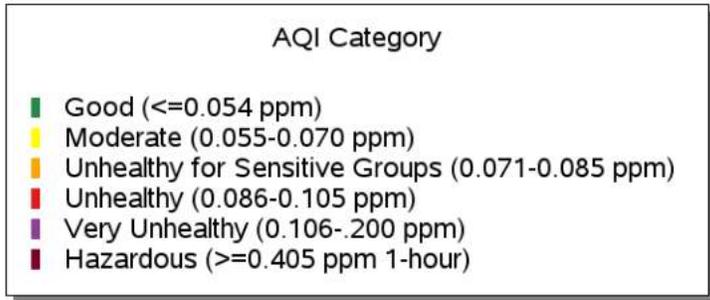
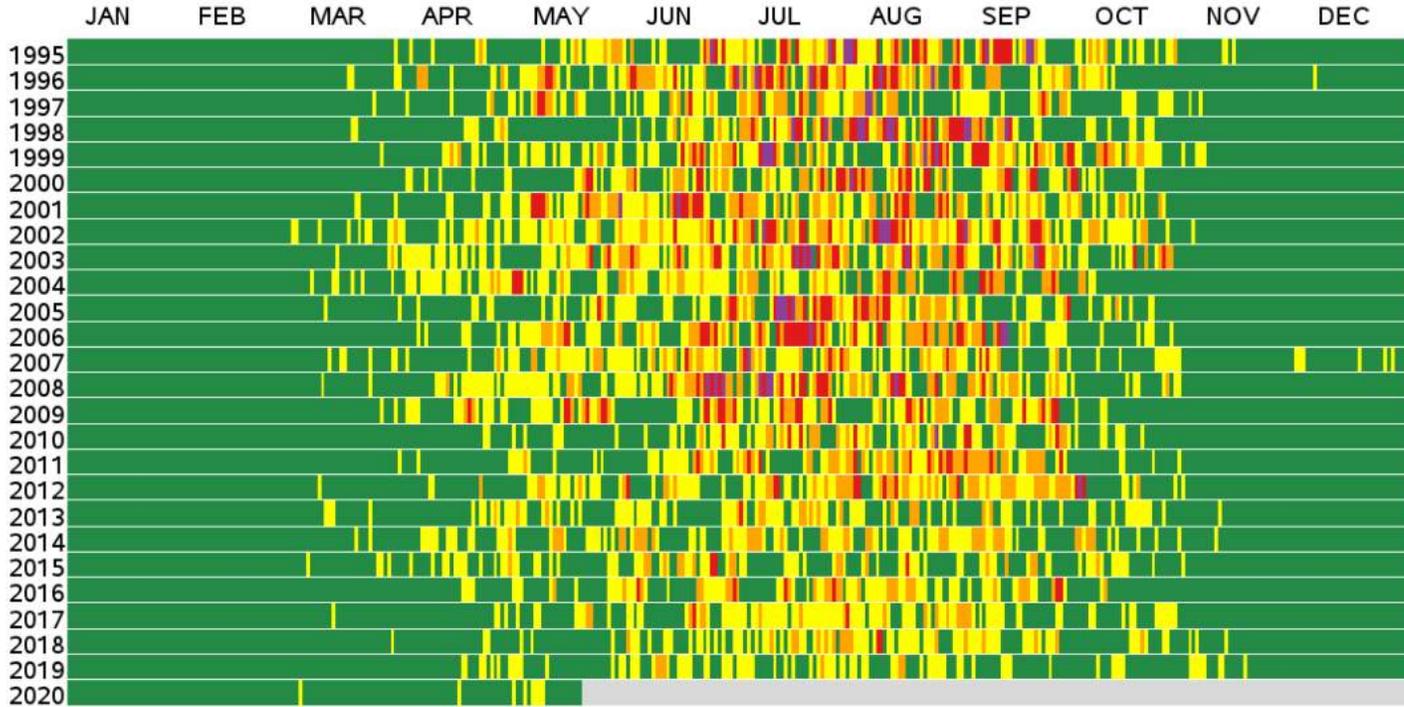
Task 3: Develop a model to estimate what the AQ would have been absent Shelter-in-Place orders.

Task 4: Estimate impact of reduced on-road traffic on overall emissions during Shelter-in-Place orders

**Goal: Scientifically Defensible
Quantification of Air Quality
Improvement**

Ozone Daily AQI Values, 1995 to 2020

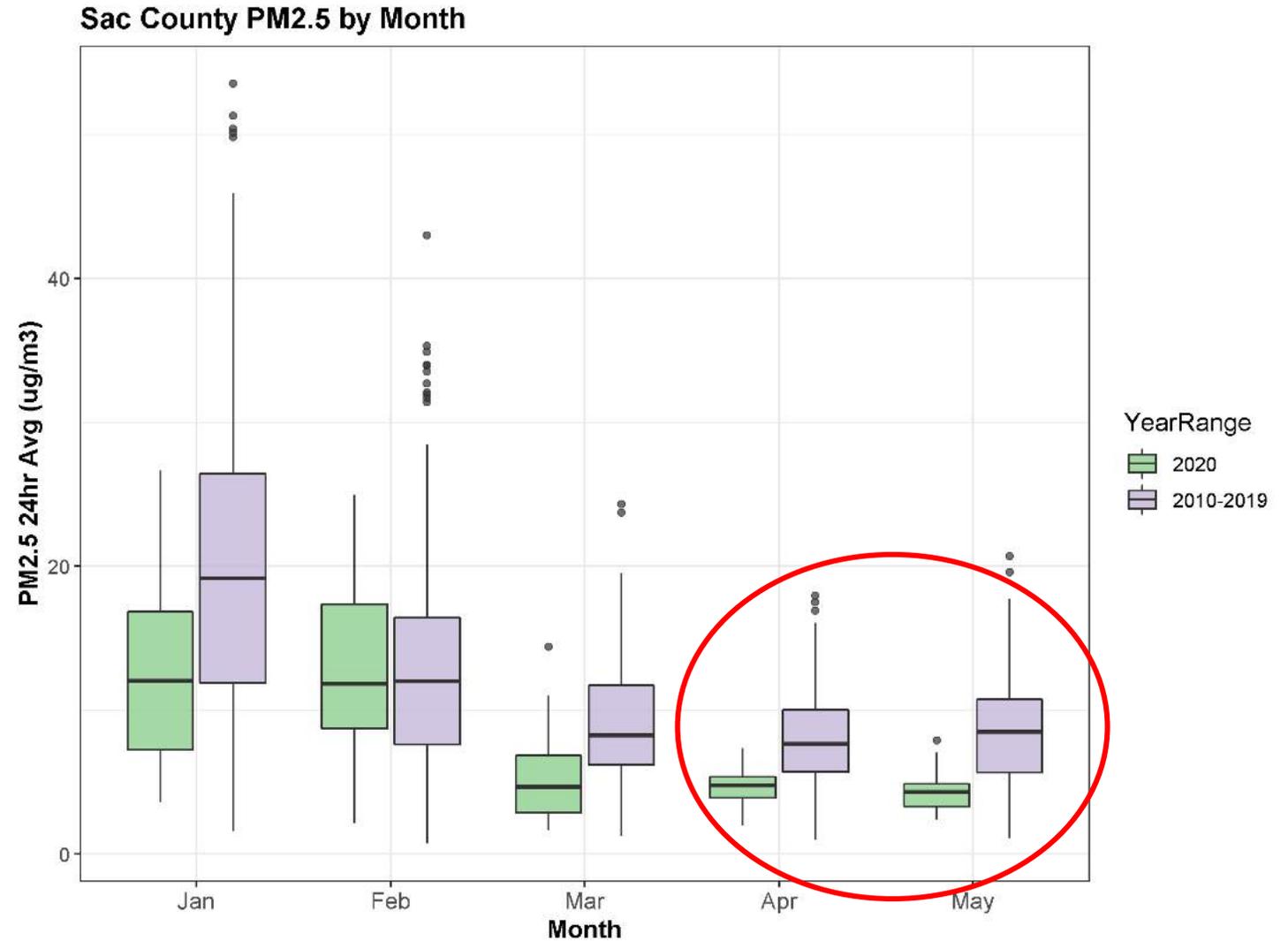
Sacramento County, CA



Task 1

Observed preliminary evidence of better air quality than historical trend

Statistically significant
observed reductions
during shelter in place
(March, April, May)



Task 2: Preliminary results

Sacramento County, April 2020

	2012, 2015, 2019 average	2020	Difference
PM _{2.5} (ug/m ³)	7.5	4.7	-2.8
NO ₂ (ppbC)	20.1	14.0	-6.1
Ozone (ppbC)	49.3	44.0	-5.3

- Compared to meteorologically similar years, monthly average concentrations for all three pollutants were lower in April 2020.
- Differences in the means were statistically significant for all three pollutants.

Stay Tuned....

Task 3: Develop a model to estimate what the AQ would have been absent Shelter-in-Place orders.

Task 4: Estimate impact of reduced on-road traffic on overall emissions during Shelter-in-Place orders

Policy & Planning Implications

- Explore and expand transportation related emission reduction strategies to meet federal and state health standards
- Air District joining SACOG to boost long-term telework across the region to reduce traffic related emissions
- Considerations for Spare the Air campaign updates

Regional Opinions on Remote Work: Valley Vision's COVID Resilience Poll

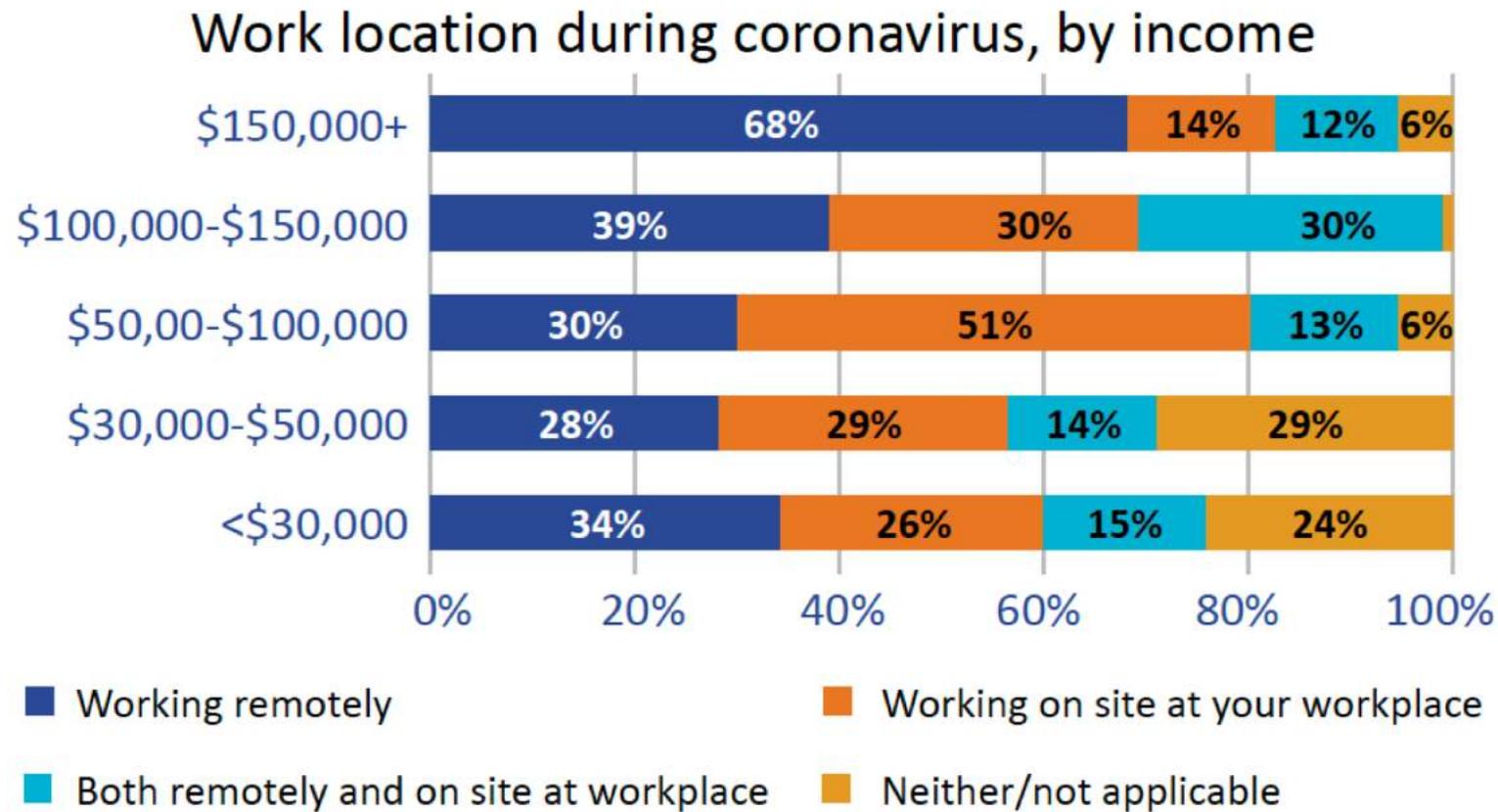


Meg Arnold

Strategic Advisor
Valley Vision

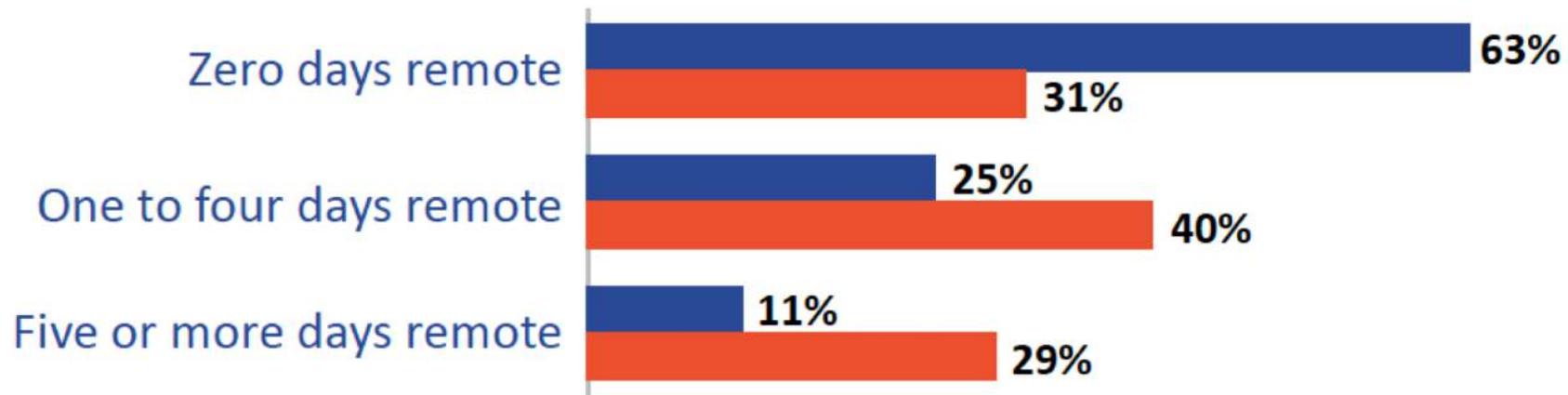


Remote work is common, especially at higher income levels



Although few worked remotely pre-COVID, many would like to do so afterwards

Amount of days worked remote before coronavirus, and amount preferred for after

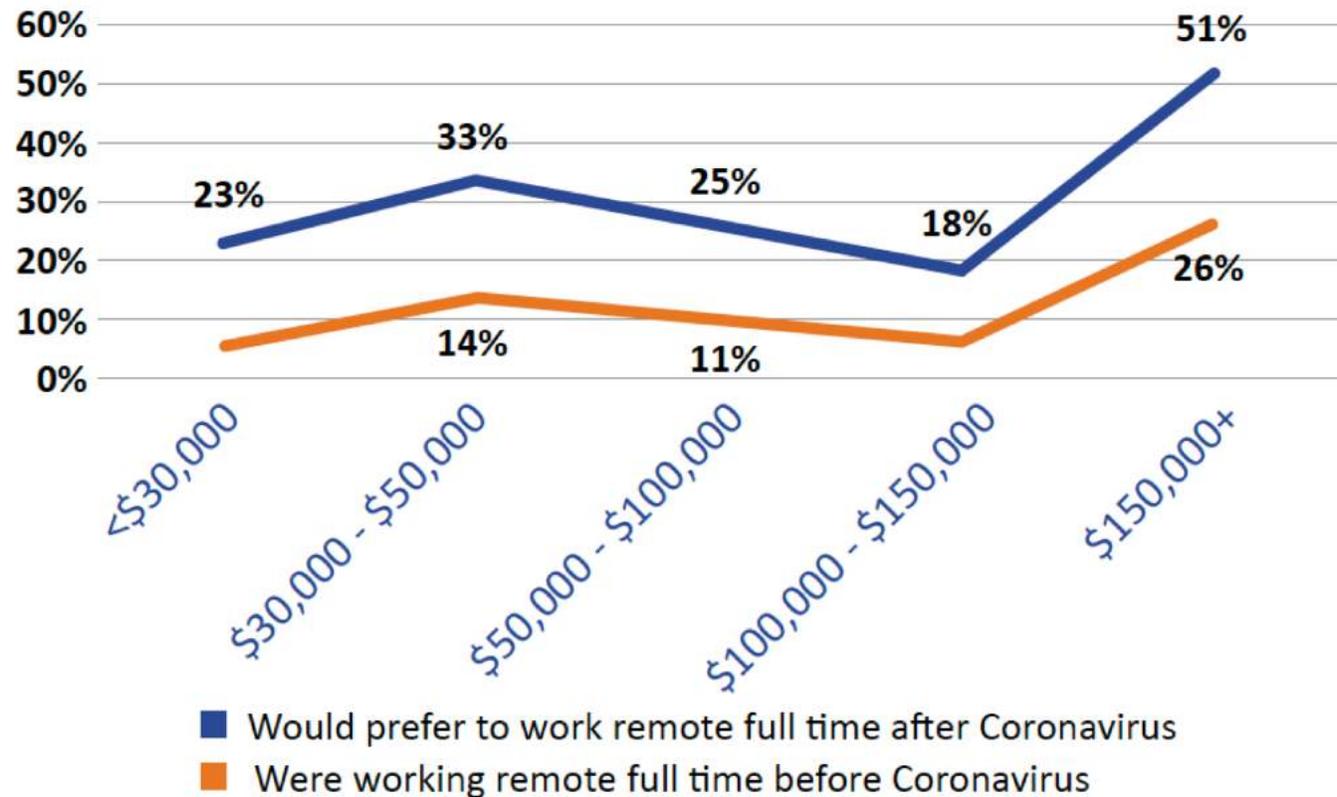


■ Amount of days worked remotely before coronavirus and shelter in place

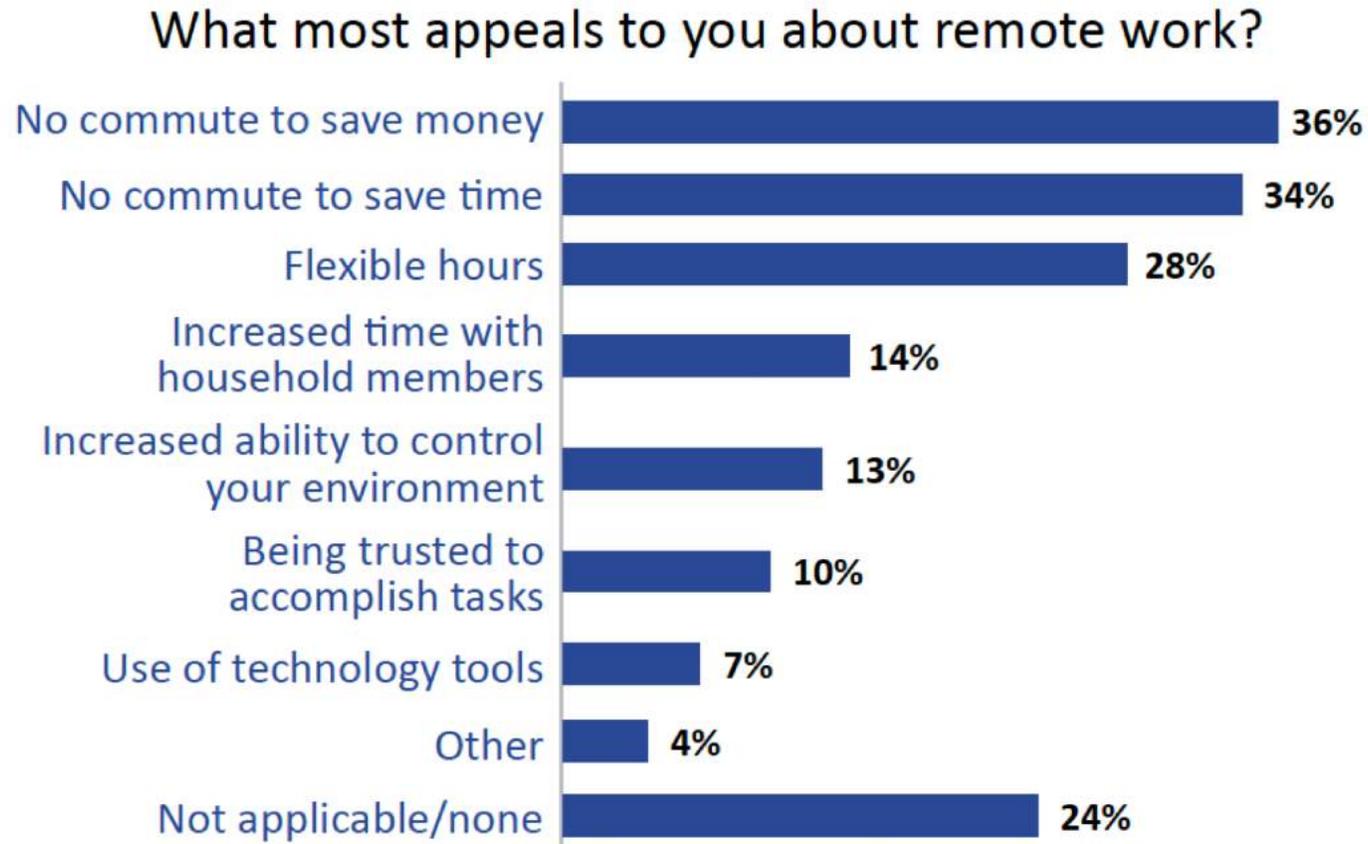
■ Amount of days would prefer to work remotely after Coronavirus

Interest in full-time remote work varies by income levels

Percentage of respondents who currently work or would like to work remotely full time



The savings in both time and money from not commuting make remote work most appealing



SACOG's Regional Telework Program



Adrienne Moretz

Senior Analyst

SACOG



Regional Telework Program Discussion

**Support for employers
to retain healthy levels of telework**

Sacramento Area Council of Governments



How did we get here?

Four-month and counting experiment in telework due to COVID-19

Significant reductions in vehicle miles traveled (VMT)

Desire to maintain ongoing telework post-COVID-19

Telework has been a strategy to reduce single occupancy vehicle trips

**Listen/
Learn**

May - June

Design

June - July

**Test/
Iterate**

July - December

**Scale/
Fail**

2021

A pink sticky note graphic with a black border and a drop shadow, containing the text "Listen/ Learn".

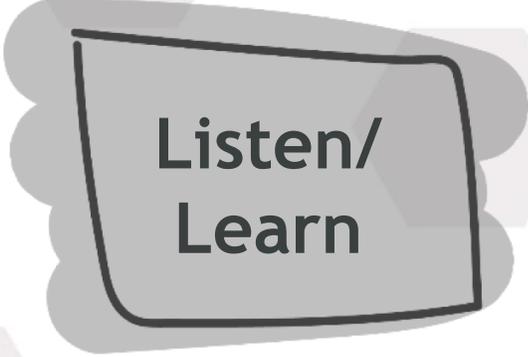
**Listen/
Learn**

May-June

**“Our employees
are reporting
higher productivity
and less stress.”**

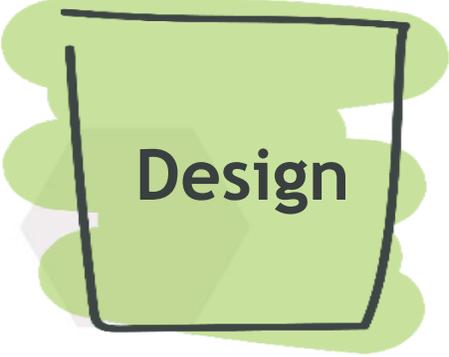
**“We want to continue
to telework, but there
are a lot of challenges
ahead.”**

**“Our city went
from 5 teleworkers
to a few thousand in
a week and a half,
adaptability of the
workforce was
remarkable.”**



**Listen/
Learn**

May-June



Design

June - July

Listen

May-June

Design

June - July

**Test/
Iterate**

July - December

**Listen/
Learn**

May-June

Design

June - July

**Test/
Iterate**

July - December

**Scale/
Fail**

2021

What Can You Do Next?

Recommend an employer to participate in our pilot

Ask if your employer has a telework policy for post-SIP

Ask your executive team if they support levels of ongoing telework

Check out existing resources at SacRegion511.org

Q&A: Remote Work, GHG Emissions, and Air Quality: Seeking to Extend New Behaviors



Janice Lam

Program Manager
SMAQMD



Meg Arnold

Strategic Advisor
Valley Vision



Adrienne Moretz

Senior Analyst
SACOG

Lighting Round 1: COVID-Driven Rapid Innovations



Louis Stewart

Chief Innovation Officer

City of Sacramento



Patrick Mulvaney

Co-owner & Head Chef

Mulvaney's B&L

Digital Inequities: Sacramento's WiFi Buses



Louis Stewart

Chief Innovation Officer
City of Sacramento



Sacramento WiFi Bus

LOUIS STEWART, CHIEF INNOVATION OFFICER

CITY OF SACRAMENTO

A solid orange horizontal bar at the bottom of the slide.

The Partnership

City of Sacramento
CalSTA
Regional Transit
Sac Public Library
AT&T
Verizon
T-Mobile
Sierra Wireless
Aruba Wireless
CradlePoint

FREE
INTERNET

WiFi
HOTSPOT



City of
SACRAMENTO



The Solution

- 60 day Proof of Concept
- Ten (10) Buses
- Seven days a week
- 120 Stops a week
- Parks, Churches, Schools





The Results

- Five (5) weeks to implement
- 1600+ users
- WiFi Bus App developed
- Speeds up to a Gig
- Plans to replicate in Maui, New York and Louisville
- Areas of improvement
 - Need for a coordinated communications and outreach strategy

Food Access & Restaurant Closures: The Great Plates Program



Patrick Mulvaney

Co-Owner & Head Chef
Mulvaney's B&L



Impacts to Transportation and Mobility



Dr. Giovanni
Circella

Director
UC Davis ITS



Chris Flores

Special Assistant
SacRT

The Impacts of the COVID-19 Pandemic on Mobility



Dr. Giovanni Circella

Director, 3 Revolutions Future Mobility Program
UC Davis ITS





The Impacts of the COVID-19 Pandemic on Mobility

July 29, 2020

Dr. Giovanni Circella

Director, 3 Revolutions Future Mobility Program, ITS Davis

gcircella@ucdavis.edu

Big disruption caused by the COVID-19 pandemic with...



...need for social distancing



...impacts on employment and travel



...adoption of ICT-based remote working and e-shopping

Lime Just Became the Biggest Micromobility Company in the World

Uber is ceding operational control of its micromobility arm, Jump, to Lime — and giving it a commanding control of the entire market.

By Kea Wilson | May 11, 2020 | 13 COMMENTS

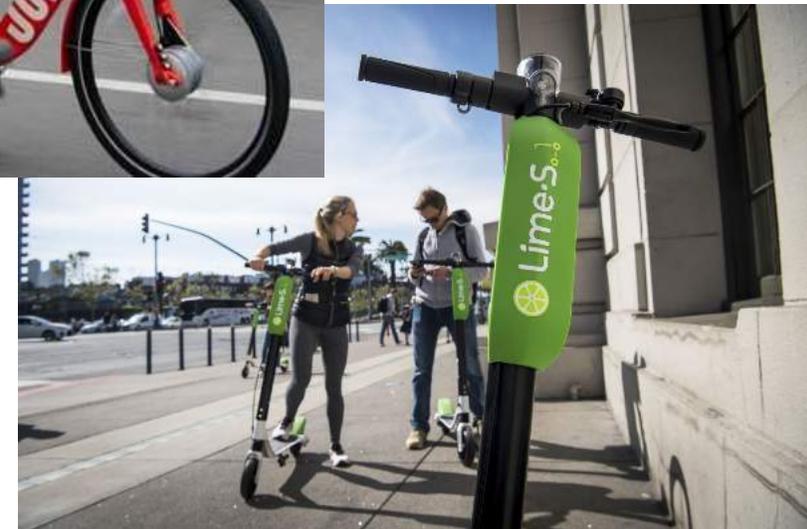


Source: StreetsBlog USA, <https://usa.streetsblog.org/2020/05/11/lime-just-became-the-biggest-micromobility-company-in-the-world/>

The COVID-19 Pandemic is already causing changes in transportation supply and business models...



Source: Uber

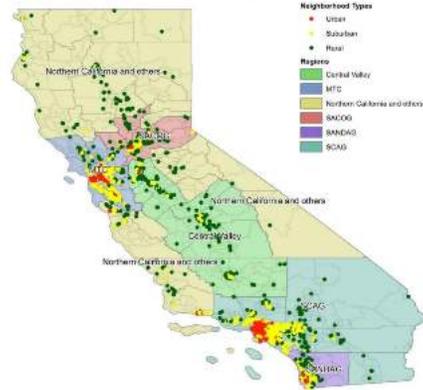


Source: Lime

UC DAVIS COVID-19 MOBILITY STUDY

2018 California mobility panel survey:

~3,400 respondents from California



2019 "8 US cities" 3R survey:

~3,300 respondents from Boston, Kansas City, Los Angeles, Sacramento, Salt Lake City, San Francisco, Seattle, Washington DC



- Combination of *quantitative* (online surveys) + *qualitative* (in-depth phone interviews) research
- Initial plan to *resample* respondents from 2018-2019 surveys
- Unique *longitudinal study* to investigate the impacts of the pandemic
- Recruitment of *additional participants* in same regions and in new regions in this data collection:
 - USA: *Atlanta, Chicago, Denver, Detroit, Tampa, New York and San Diego*
 - Canada: *Toronto and Vancouver*
- Combination with analysis of passively-collected (e.g. cell phone) travel data carried out by student team
- Investigation of *temporary* vs. the *longer-term* impacts of the pandemic

UC DAVIS COVID-19 MOBILITY STUDY

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
- Shared mobility adoption
- Propensity towards AVs



2020 COVID-19 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



Post-COVID-19 Data

To be collected in Fall 2020 and/or Spring 2021

Interest in evolution of changes over time

Integration with passively-collected (i.e. cell phone) data

Cooperation with other researchers in the US and Europe for comparative analyses

**Previous data available for longitudinal component of the sample*

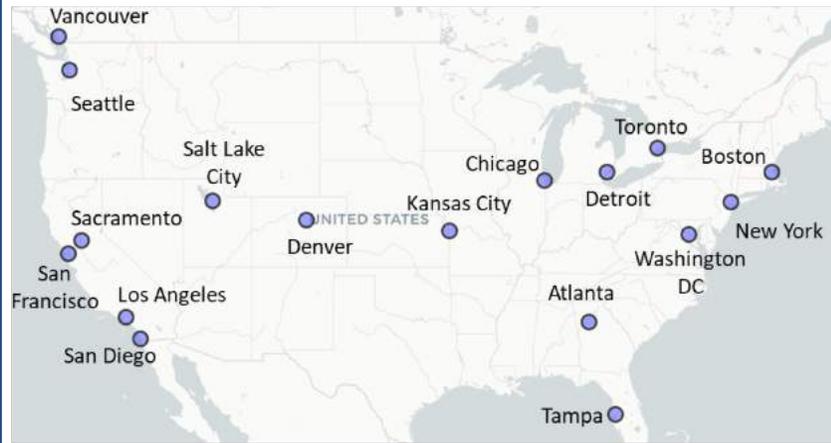
Dataset L (Longitudinal, N=1,339)

- **Sampling Method:** Recall of participants from:
 - 2018 California Mobility Study
 - 2019 “8 Cities” (Boston, Kansas City, Los Angeles, Sacramento, Salt Lake City, San Francisco, Seattle and Washington DC) Study
- **Recruitment Method:** Direct e-mail
- **Valid Emails for Recontact:** 3,466
- **Response Rate:** 38.6%
- **Incentives:** \$10 Amazon gift card to each survey respondent
- **Survey administration:** May to July 2020



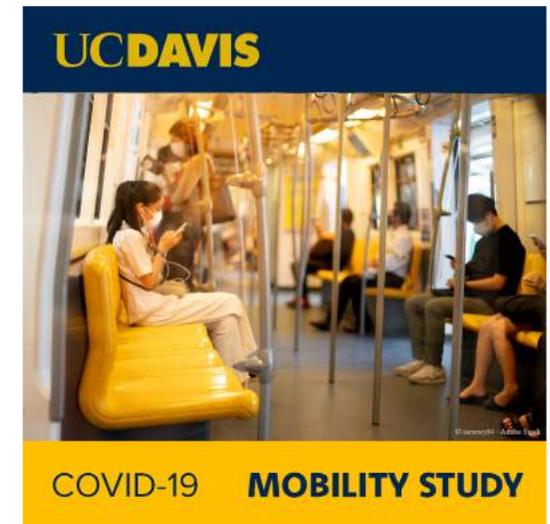
Dataset O (Op. Panel, N=8,834)

- **Sampling Method:** Convenience sample through online opinion panel
- **Study Regions: 17 in the US and 2 in Canada:**
 - *United States:* Los Angeles, Sacramento, San Diego, San Francisco, Seattle, Chicago, Denver, Detroit, Kansas City, Salt Lake City, Atlanta, Boston, New York, Tampa and Washington D.C.
 - *Canada:* Toronto and Vancouver
- **Recruitment Method:** E-mail from online opinion panel
- **Sociodemographic Targets:** Age, gender, race and ethnicity, employment and HH income
- **Incentives:** Airline miles/points from opinion panel
- **Survey administration:** May to July 2020



Dataset C (Convenience, N=1,266)

- **Sampling Method:** Convenience sample
- **Study Regions:** Open to all respondents with survey link
- **Recruitment Method:** Various channels, including
 - Professional listservs, online social media
 - Facebook and Instagram ads in the US and Canada
- **Incentives:** Participation in random drawing to win one of 200 \$10 gift cards or one of 10 \$100 gift cards from Amazon
- **Survey Administration:** May to July 2020 (survey and data collection still open)



COVID-19 Data Collection

- Three versions of the survey:
 - *Dataset L* – “*Longitudinal Data*” through recall of 2018-2019 respondents
 - *Dataset O* – “*Opinion Panel*” in 15 regions in the US and two regions in Canada
 - *Dataset C* – “*Convenience Sample*” with outreach through e-mail listservs and online social media ads
- Online survey in Qualtrics.com
- Total sample size of 10,958 (as of July 7th, in the US and Canada)
- More information on the project at postcovid19mobility.ucdavis.edu

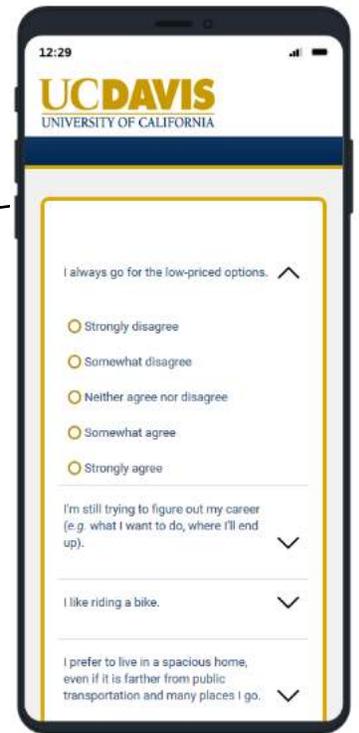
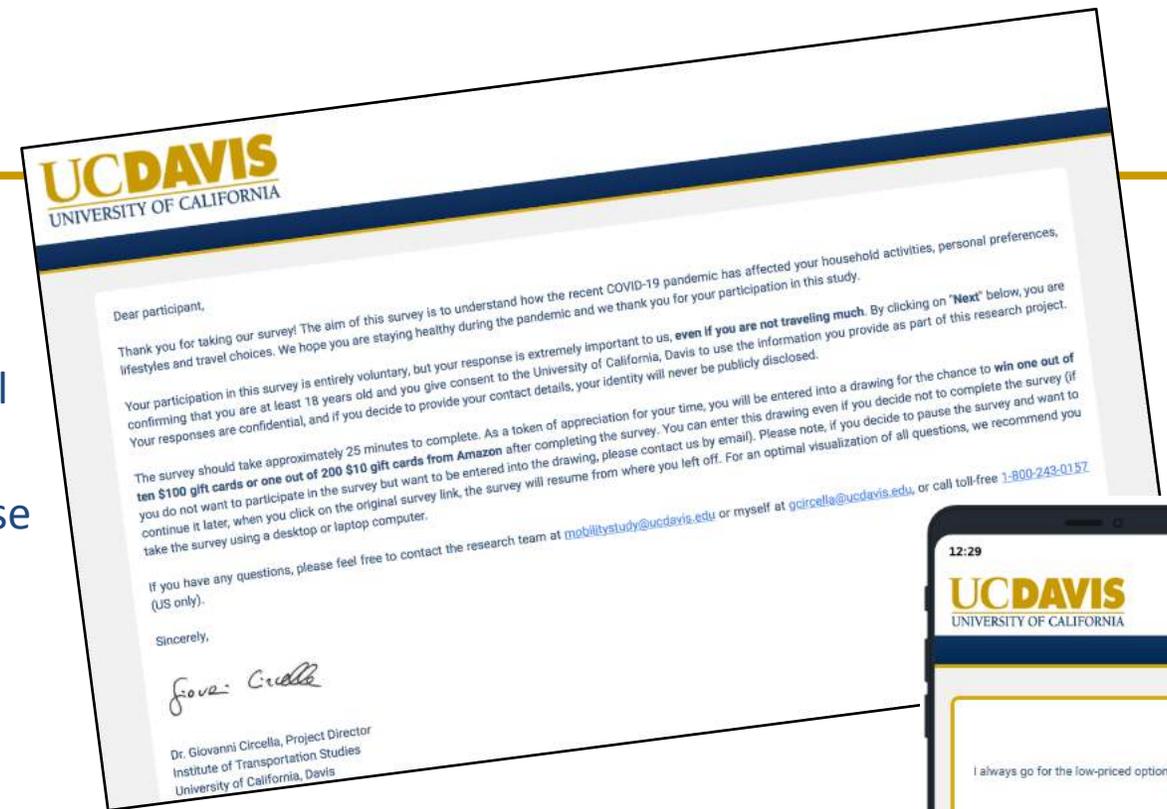


Geographic distribution of US respondents (as of July 7)

Survey Content

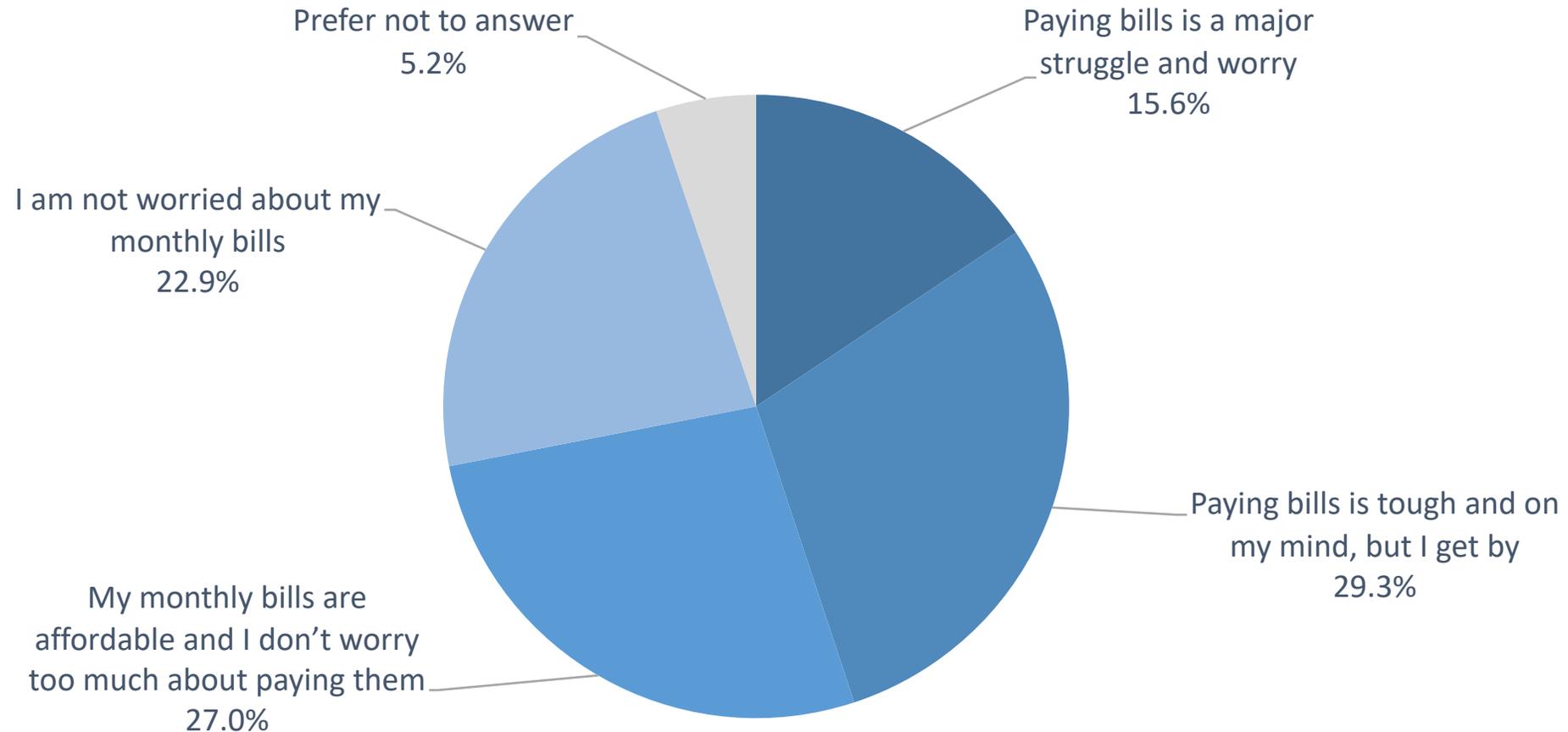
All survey versions include nine main sections:

1. Attitudes and preferences on transportation, residential location, environmental topics, etc.
2. Impacts of COVID-19 pandemic on lifestyle, including use of technology
3. Employment status, work and study activities
4. Household organization and child care
5. Online and in-person shopping patterns (for groceries, food delivery services, visits to restaurants, etc.)
6. Current travel choices (by trip purposes and modes)
7. Use of emerging transportation services
8. Household vehicle ownership and eventual plans for vehicle purchase
9. Household and individual sociodemographics



The online survey was available in both desktop and mobile version, even if the use of a computer or tablet was encouraged

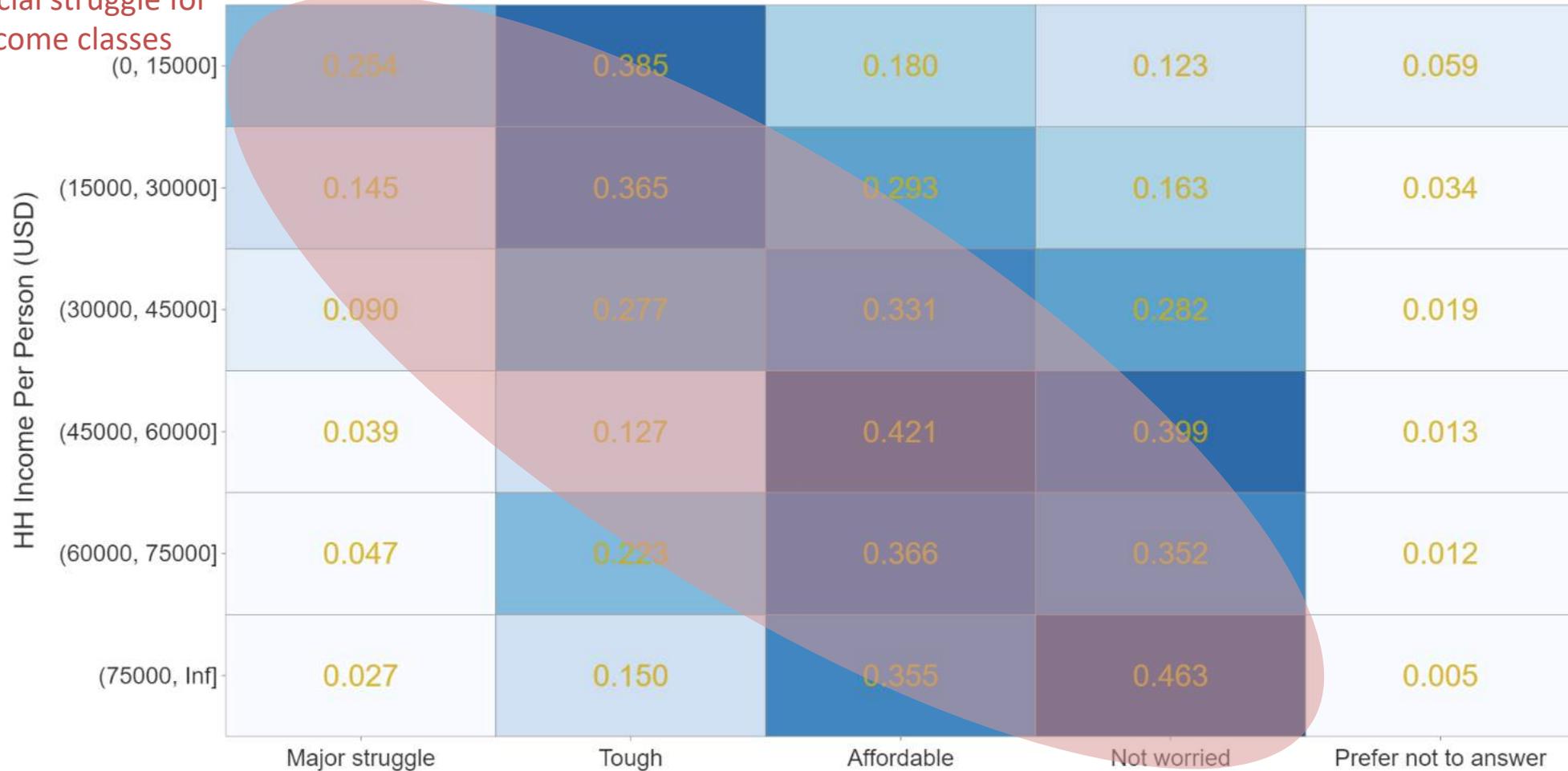
Impact of COVID-19 Pandemic on Household Financial Situation



Dataset O (N = 8,834)

Financial Impact of COVID-19 Pandemic, by Household Income Category

More financial struggle for lower-income classes



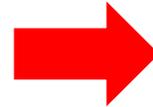
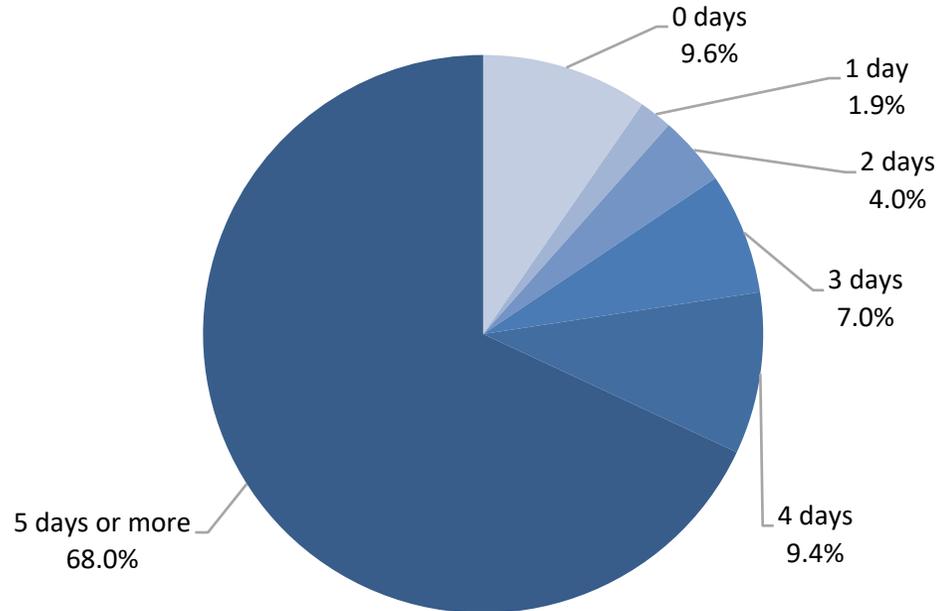
Bill Anxiety

Less financial burden for higher-income classes

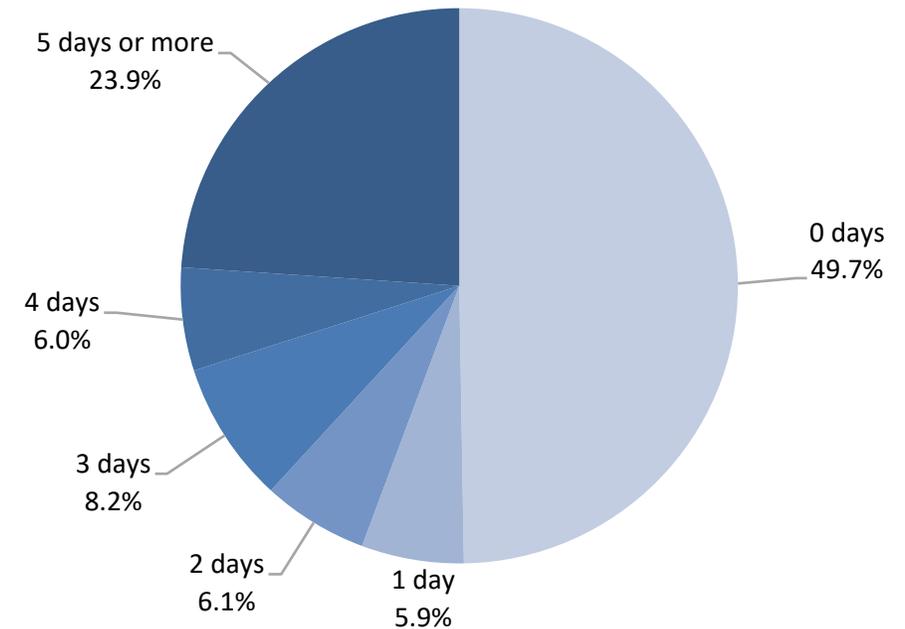
Dataset O (N = 8,834)

Days travelled to work before vs. during the pandemic

In an average week before the COVID-19 pandemic (before March 2020), on how many days did you physically travel to work?



In an average week during the COVID-19 pandemic, on how many days have you been physically traveling to work?

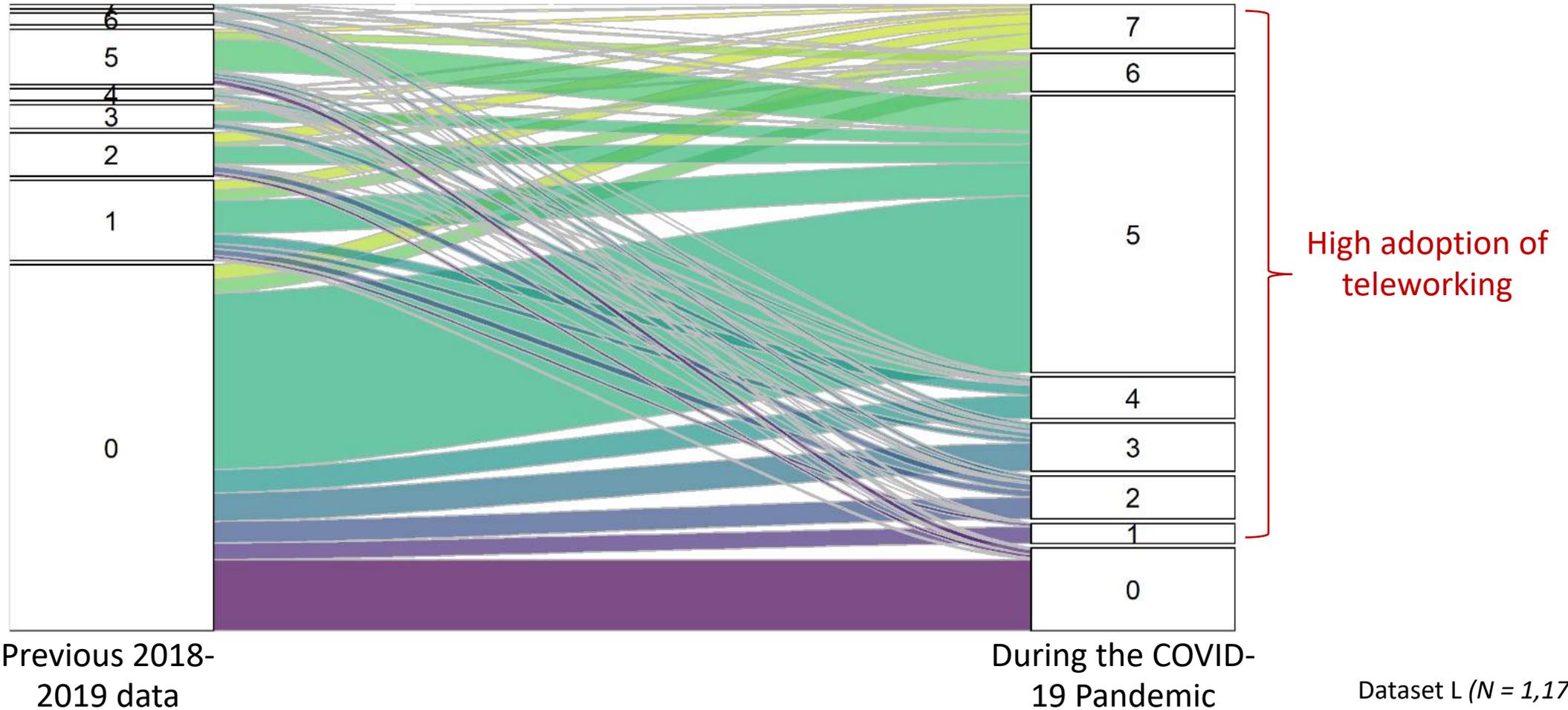


Dataset O ($N = 5,872$ before and $N = 5,117$ during the pandemic, as 755 respondents who stopped working)

- Individuals in certain occupations and lower-income segments of the population often do not have access to telecommuting.
- The pandemic is also reducing interest in the use of shared modes of travel, including public transportation and ridehailing.

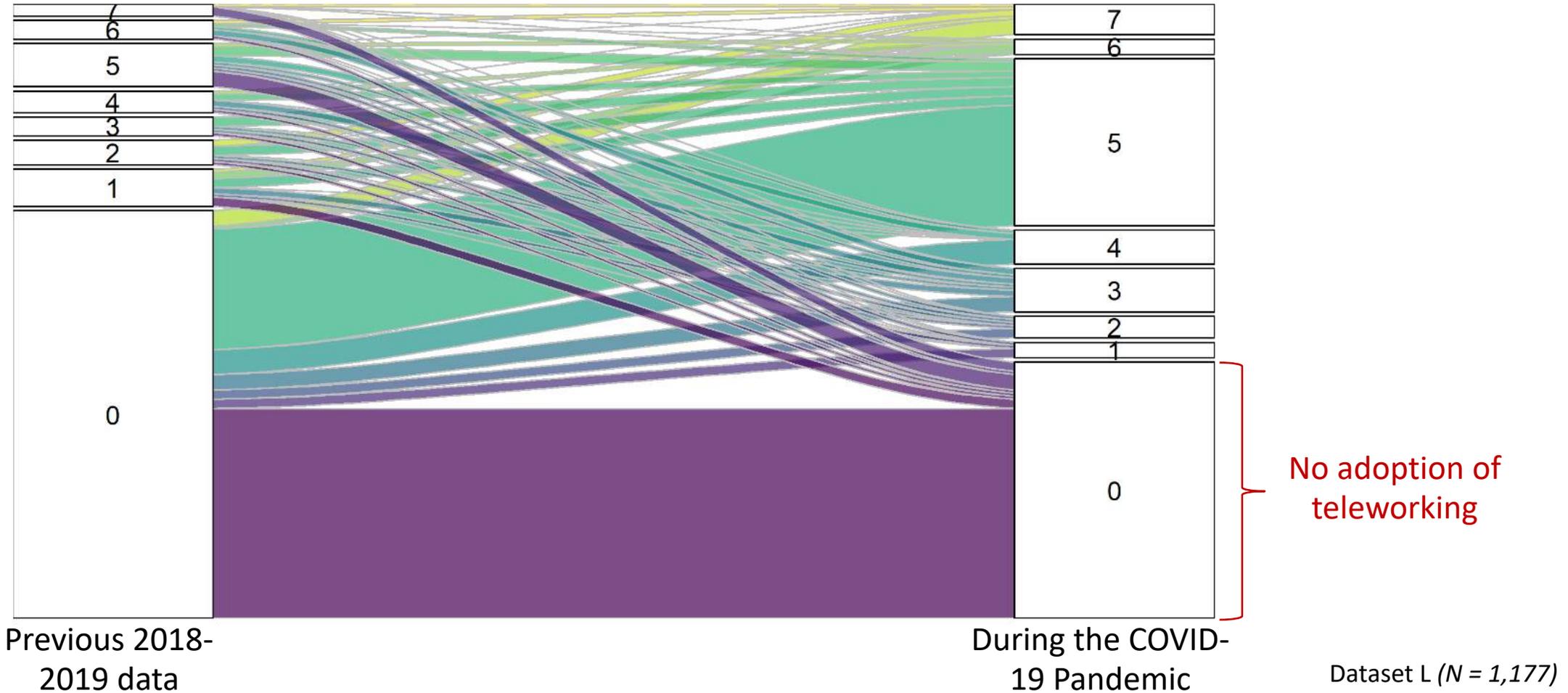
Number of Days Working Entirely from Home: Higher-Income HHs

For higher-income respondents (HH income = \$75k or more)



Number of Days Working Entirely from Home: Lower-Income HHs

For lower-income respondents (HH income < \$75k)





When you're still wearing your Zoom meeting outfit after then quarantine is lifted.

Will we go back to our previous life...?

- There are reasons to believe that after the large disruption, individuals will to a certain extent go back to their behaviors (and habits) from before the pandemic
- However, the longer the disruption, the more likely longer-term impacts might derive (and modifications in lifestyles might persist). Besides, among other effects...
 - Increase in e-shopping will likely persist
 - Retail space will likely be modified forever (some stores are shutting down and will not reopen)
 - Economic activities will need time to recover

Research and Policy Questions

- Travelers are hesitant to use shared modes and less inclined to live without a car.
- Transportation supply might change in the meantime, due to funding issues, changes in investments, mergers and acquisitions.
- Importance of policy making, in particular, to promote active modes of travel and avoid resurgence of car travel.



- Equity impacts need consideration, due to the burden of disruption differently affecting the various segments of the population.
- It's probably too early to evaluate whether there will be increased demand for low-density suburban housing (*questions about "future" aspirations are not very reliable*)...

New website to share information on UC Davis COVID-19 Mobility Study: postcovid19mobility.ucdavis.edu

postcovid19mobility.ucdavis.edu

Post Covid-19 Mobility

THE STUDY THE TEAM 3RFM PROGRAM ITS DAVIS IN THE NEWS

About the Study

Our research team at UC Davis is leading a large data collection effort that includes a combination of *quantitative* (online surveys checking how behaviors and attitudes have changed and how people are adjusting to the COVID-19 outbreak) and *qualitative* (in-depth phone interviews to discuss more details on household organization, work activities, use of e-shopping and delivery services, changes in habits, preferences about land use, future plans to adjust travel choices and vehicle ownership, etc.) approaches.

As part of the project, we are resampling thousands of respondents from our previous-2018 California mobility survey (~3,400 respondents from California) and 2019 "8 cities" travel survey (~3,300 respondents from Los Angeles, San Francisco, Sacramento, Boston, Seattle, Salt Lake City, Kansas City and Washington DC). This is giving us a unique opportunity to build a longitudinal study to investigate the impacts of the pandemic. Our research team is also coordinating with other colleagues in the US and Europe, and plans to develop comparative



Next Steps in the Research Project

- Large amount of data being collected
- Opportunities for cooperation with several research and planning agencies
- On-going analysis of changes in (among other topics):
 - Travel behaviors and use of various travel modes
 - Adoption of e-shopping
 - Long-distance travel
 - Use of emerging travel modes
 - Propensity to modify vehicle ownership
- New webinar with more detailed analyses from the dataset

Research Team



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Postdoc Researcher
University of California, Davis

With the contribution of many other colleagues at UC Davis and other partner institutions...

Acknowledgements

- Lew Fulton
- Mollie D'Agostino
- Dan Sperling
- Kari Watkins
- Austin Brown
- Becca Kiriazes

Many other colleagues at UC Davis, other institutions and partner agencies have also contributed to this research.

Research Supported by:



Other Research Partners:



3 Revolutions Future Mobility Program Sponsors:



Public Transit in the Capital Region



Chris Flores

Special Assistant to the GM/CEO
SacRT





Climate Readiness Collaborative
Chris Flores, Sacramento Regional Transit District
Wednesday, July 29, 2020

Snapshot of SacRT

- 400-sq mile service area
- Operate bus, light rail, paratransit and microtransit services
- 3 light rail lines/52 light rail stations
- 22 park-and-ride lots
- 43 miles of light rail
- 80 bus routes
- 3,100+ bus shelters/stops
- Annual Ridership 22 million (pre-COVID-19)
- 1,400 employees
- \$200M operating budget



SacRT Successes

- First fare-free youth program in the nation
- One year program
- Funding provided by participating cities and school districts
- 220,000 students in grades TK through 12, home-schooled students, and foster and homeless youth
- Ridership grew 127% in five months



SacRT Successes

- Largest microtransit provider in the country with 9 SmaRT Ride microtransit zones
- App-based on-demand service
- 45 shuttles / 9 zero emission electric vehicles
- 210,000 trips
- Awarded a \$12 million grant by the Sacramento Transportation Authority



SacRT Successes

- **Successfully transitioned complimentary ADA paratransit service and non-ADA service from contract service to in-house operations**
- **Hired same drivers and reservationists**
- **Service goal is to improve service quality and customer satisfaction**



SacRT Successes

- Causeway Connection 100% zero emission electric (ZEV) shuttle service
- 12 ZEV shuttles were purchased by Electrify America, the Volkswagen subsidiary
- Connects cities of Davis with Sacramento
- Free Wi-Fi and USB charging



SacRT COVID-19 Actions

- **School closures and stay at home orders resulted in suspending 40% of bus service and all school routes in March**
- **Historic ridership drop – Approximately 75% drop in late March, early April**
- **System-wide ridership loss to date is approximately 65%**
- **Restored service levels in late April to 70% and to 84% levels in June**
- **Quickly implemented best safety measures to protect SacRT employees and customers**

SacRT Best Safety Practices



Fear of Riding Public Transit

CORONAVIRUS: COVID-19
Fear of Public Transit Got Ahead of the Evidence
Many have blamed subways and buses for coronavirus outbreaks, but a growing body of research suggests otherwise.
JUNE 14, 2020

Janette Sadik-Khan
Former commissioner of the New York City Department of Transportation

Seth Solomonow
Co-author of *Streetfight: Handbook for an Urban Revolution*



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COVID-19 NEWS BUS RAIL TECHNOLOGY SAFETY & SECURITY ALT. MOBILITY MANAGEMENT TRANSIT BIDS CAREER CENTER

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HOME | SAFETY & SECURITY

Riding transit during COVID-19 is safer than most think when everyone follows basic safety guidelines

PANDEMIC
Contagion fears in mass transit were overblown — advocates
Maxine Joselow, E&E News reporter Published: Tuesday, July 28, 2020



COVID-19 SacRT Actions

Implementing Best Safety Practices

- 1. Sanitize and fog our buses, light rail trains and facilities**
- 2. Require masks of all passengers and SacRT employees**
- 3. Clean all touch points and provide employees with hand sanitizer, disinfectant wipes, disposable gloves and masks**
- 4. Blocking seats in all vehicles to maintain social distance of at least six feet**
- 5. Installed a protective plexi-glass barrier on each bus by the driver's seat**
- 6. Monitoring light rail ridership and adding more train cars for busier commutes**

COVID-19 SacRT Actions

Implementing Best Safety Practices

- 7. Implemented policies requiring all employees to wear a face covering or mask in the workplace**
- 8. Urging riders to download the free mobile fare app to reduce touchpoints while paying fare**
- 9. Automatically opened light rail train doors during peak hours at every station to reduce touchpoints**
- 10. Operating shadow (extra) buses on busier routes to ensure proper physical distancing**

**Learn more about our COVID-19 response and precautions:
sacrt.com/covid19.**

**FACE COVERING OR MASK
NOW REQUIRED TO RIDE SACRT!**

**WEARING
IS CARING**



SacRT in the Community

FREE
INTERNET



WiFi
HOTSPOT



SacRT in the Community

- **SacRT has thrived as a health and social service partner**
- **Partnership with Governor and CalSTA, to equip 10 mobile Wi-Fi buses in communities with limited high-speed internet access**
- **Served as a blueprint for other agencies to follow (60-day trail) – one of two cities**
- **The buses provide 3½ hours of wireless broadband services at 40 locations every day**
- **Retained equipment for future use – Census Training**
- **Partnered to support fresh food delivery systems for seniors and other vulnerable groups with limited access - Great Plates/Farmers Market/Indomitable Hands programs**

SacRT COVID-19 Financial Impact

- **SacRT relies on fare revenue, and local and state funding predominantly from sales tax proceeds**
- **Farebox recovery, state and local funding make up about 70% of our revenue. All are expected to be significantly down for an extended period of time**
- **While we are thankful for the funding in the federal CARES package, we realize that this is just a temporary fix**
- **Must advocate for additional funding in federal relief packages**

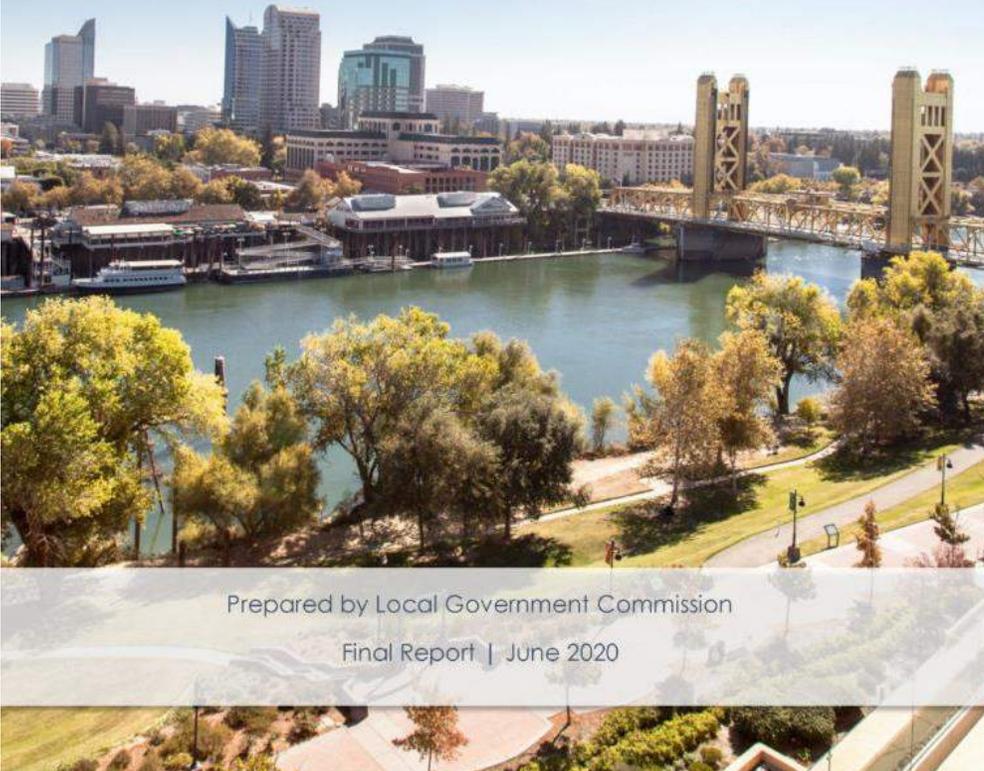
SacRT COVID-19 Financial Impact

- **Implemented several cost-saving measures:**
 1. Freeze on non-critical positions
 2. Aggressive reduction of overtime costs
- **SacRT has not had to implement any major measures:**
 1. No layoffs
 2. No reduction or freeze of salaries
 3. No furloughs
- **Worked closely with our union partners to reach tentative agreements**

SacRT COVID-19 Recovery

- **SacRT has been closely monitoring ridership and based on trends, we are now adding more frequency and earlier start times**
- **In June, we restored service to approximately 84% of service levels and expanded three Smart Ride zones**
- **Expect to restore 100% of service on Sunday, August 30**
- **Late June early July experienced a 10% increase in ridership as economy began to reopen**
- **The stable ridership is attributed to need for essential service**
- **Focus on best safety practices as we welcome riders back to the system**
- **Renegotiating fare contracts with colleges to better reflect ridership with distance learning**

Achieving Carbon Zero in Sacramento and West Sacramento by 2045



Prepared by Local Government Commission

Final Report | June 2020

A bold vision for Sacramento and West Sacramento: Carbon Zero by 2045

Transit and Shared Mobility

Expand and improve transit and shared mobility services to be more accessible, affordable, timely and attractive than single-occupancy-vehicle use so that:

- 30% of all trips are by transit and pooled shared mobility by 2030
- 50% of all trips are by transit and pooled shared mobility by 2045

Transit's Role in Environmental Sustainability

1. Improve Air Quality
2. Reduce Greenhouse Gas Emission (GHG)
3. Facilitate Smart Growth
4. Save Energy

1. Improving Air Quality

- **Air quality is often the unhealthiest in urban and suburban areas where traffic congestion is the worst**
- **Public transportation can reduce the need for many separate trips by private vehicles**
- **Most rail transit vehicles emit little or no pollution, as they are powered by electricity. SacRT's buses currently use compressed natural gas (CNG), which produce fewer pollutants**

2. Reduce Greenhouse Gas Emissions

- **Transportation accounts for 29% of GHG emissions in the United States. In California, that number is closer to 50%**
- **Studies show that light rail systems produce 62% less and bus transit produces 33% less GHG emissions per passenger mile than an average single-occupancy vehicle (SOV)**

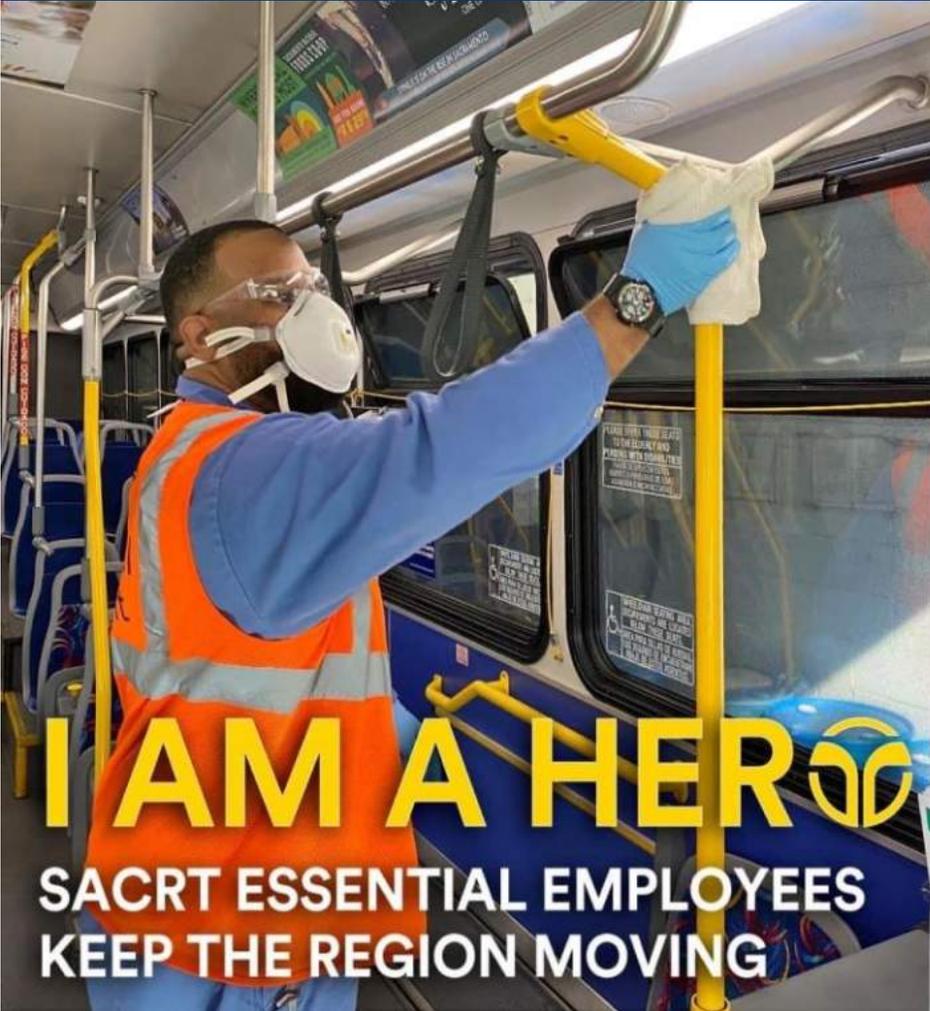
3. Facilitate Smart Growth

- Transit reduces GHG's by facilitating compact development, which conserves land and decreases distances people need to travel to reach destinations
- Compact development also leaves more land in the region for parks, wildlife preserves, forests and other uses such as agriculture
- Finally, it reduces the need for pavement, meaning less run-off that degrades the water supply

4. Save Energy

- **Ride-sharing using public transit can save fuel and decreases the need for constructing more transportation infrastructure, manufacturing new vehicles, and extracting more fossil fuels, which equals energy savings and fewer environmental impacts**
- **Congestion relief from transit also saves fuel as vehicles stuck in gridlock waste fuel, generate emissions and leads to wasted time sitting in traffic**

Heroes Moving Heroes – SacRT Employees



Q&A: Impacts to Transportation and Mobility



Dr. Giovanni
Circella

Director
UC Davis ITS



Chris Flores

Special Assistant
SacRT

Lighting Round 2: COVID-Driven Rapid Innovations

We invite you to share about your own organization's COVID-driven rapid innovations!

THANK YOU!



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Questions?

Please contact Catherine Foster, CRC's Coordinator, at cfoster@lgc.org.

