



Potential Economic Impacts of COVID-19 in the SCAG Region

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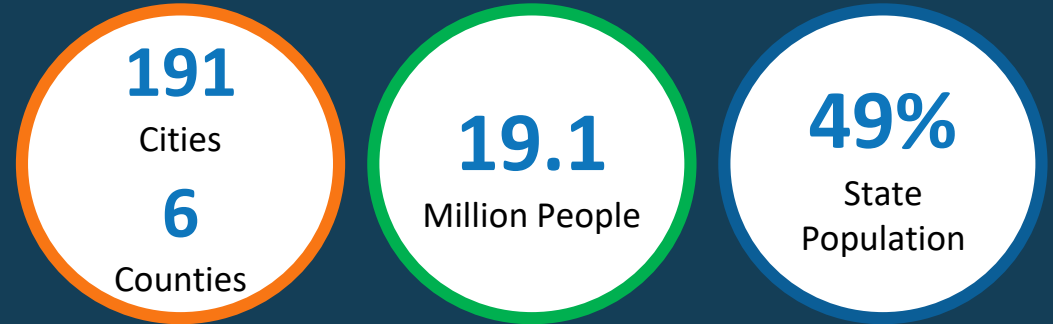
www.scag.ca.gov



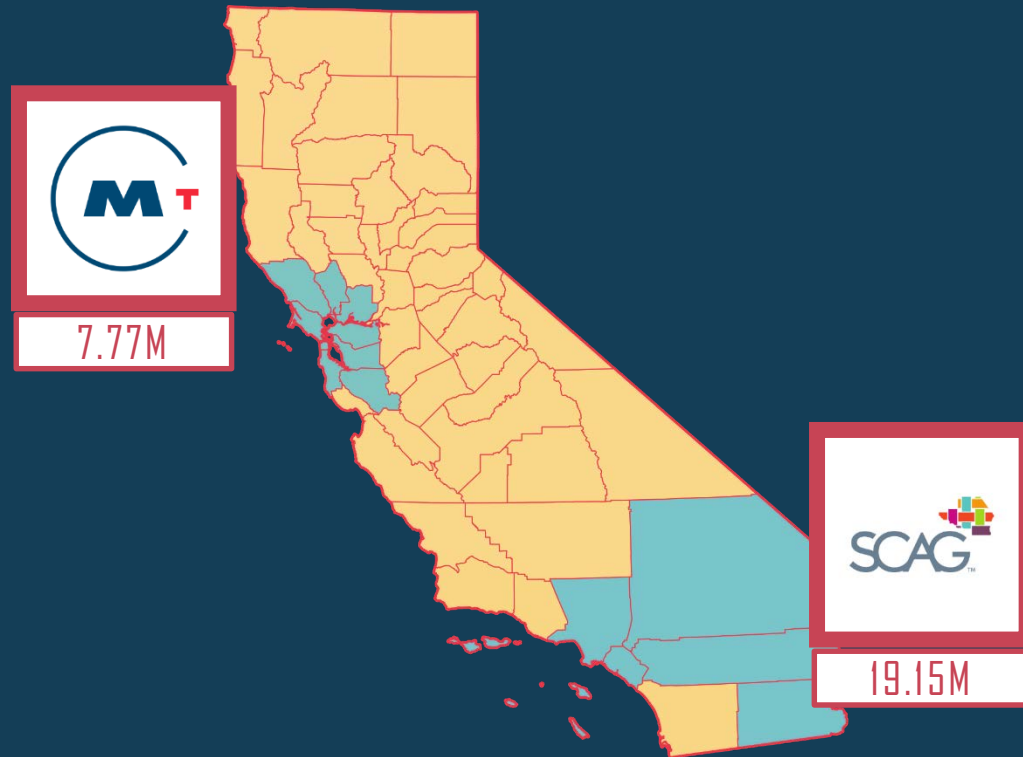
- SCAG background
- *What is happening?*
- Retail trade & taxable sales
- REMI model: employment impacts
- Conclusions and policy response

What Region?

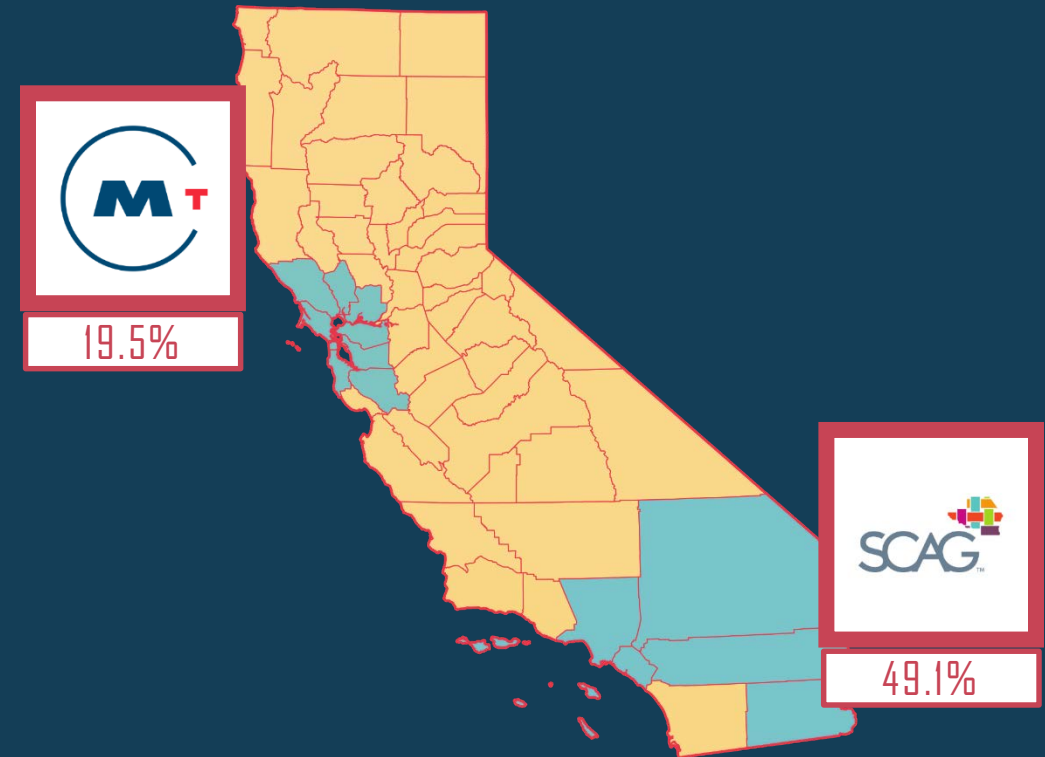
- Southern California Association of Governments
- Founded 1965
- Nation's largest Metropolitan Planning Organization
- California's largest Council of Governments
- Jurisdictions are members, too



Southern California vs. the Bay Area



2018 POPULATION



SHARE OF CALIFORNIA POPULATION

“Everything that happens in the Bay Area happens 2.5 times as much here!”

Long-range focus: 2020-2045



State Mandates

- Achieve 2020 (8%) and 2035 (19%) regional per capita GHG emission reduction targets.
- Plan for 1,341,827 additional housing units by 2029.

Federal Mandates

- Transportation Conformity Determination
- Regional emissions analysis test
- Timely implementation of transportation control measure

Background

- On May 14, SCAG released a white paper on the potential economic impacts of COVID- 19 in the 6- county region:

http://www.scag.ca.gov/Documents/scag- COVID- 19- White- Paper_ FINAL_ 2020- 0514.pdf

- Preliminary impact assessment:
 - Decrease in taxable sales of 26- 38% over 2020 and 2021
 - Average annual unemployment of 19.3% in 2020 and 12.2% in 2021
- Why release this?
 - SCAG does not levy or collect taxes
 - SCAG does not allocate especially large amounts of project funding
 - Policymakers, especially small cities, special districts, and other agencies look to us for a source of credible expertise

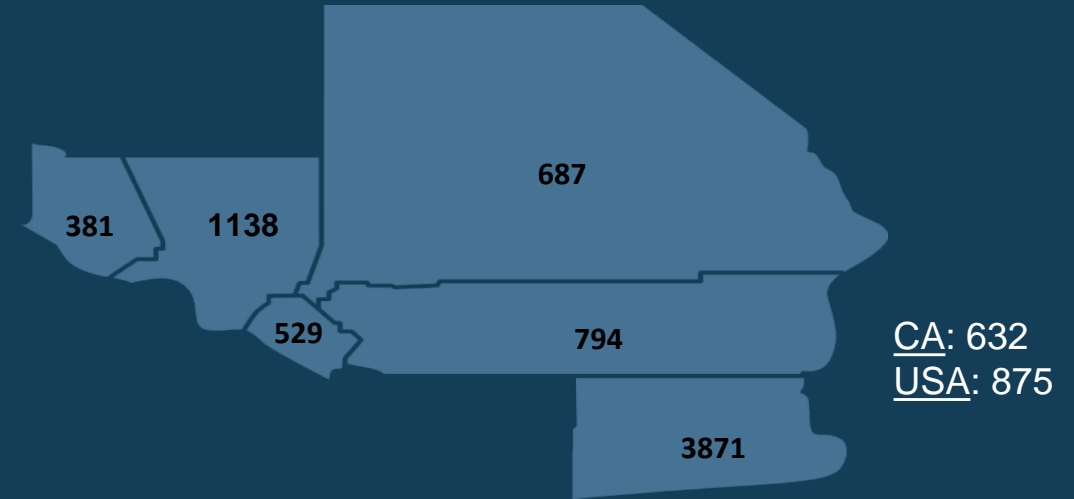
Preliminary Assessment: What is happening?

COVID-19 Pandemic

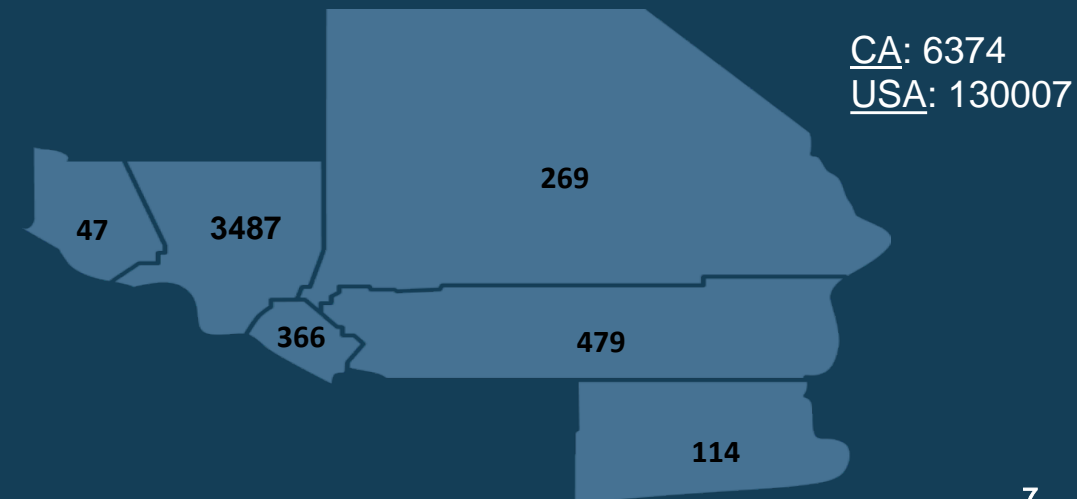
How to forecast economic response and consumer behavior when “the virus makes the timeline?”

- **COVID- 19 Response Timeline in California**
 - March 19: California’s statewide stay- at- home order
 - May- June: re- opening of most establishments
 - June 18: statewide mask order issued
 - July 1: state order to close indoor dining, etc. in 19 counties (including SCAG region)
- **Accelerating existing trends**
 - E.g. telework, telemedicine, decline in brick- and- mortar retail

Confirmed cases per 100k pop as of 7/6:



Deaths as of 7/6:



Preliminary Assessment: What is happening?

Economic Indicators



- **2020 first quarter GDP dropped 4.8%**
 - But only 2 out of the 12 weeks took place under “lockdown”
- **US and CA jobless claims since March**
 - Unemployment rates shot above 15%, possibly above 20%
 - SCAG region: higher reliance on tourism, hospitality, etc. may increase impact here
 - Changing relationship between state and national share of initial claims

Real GDP: Percent change from preceding quarter

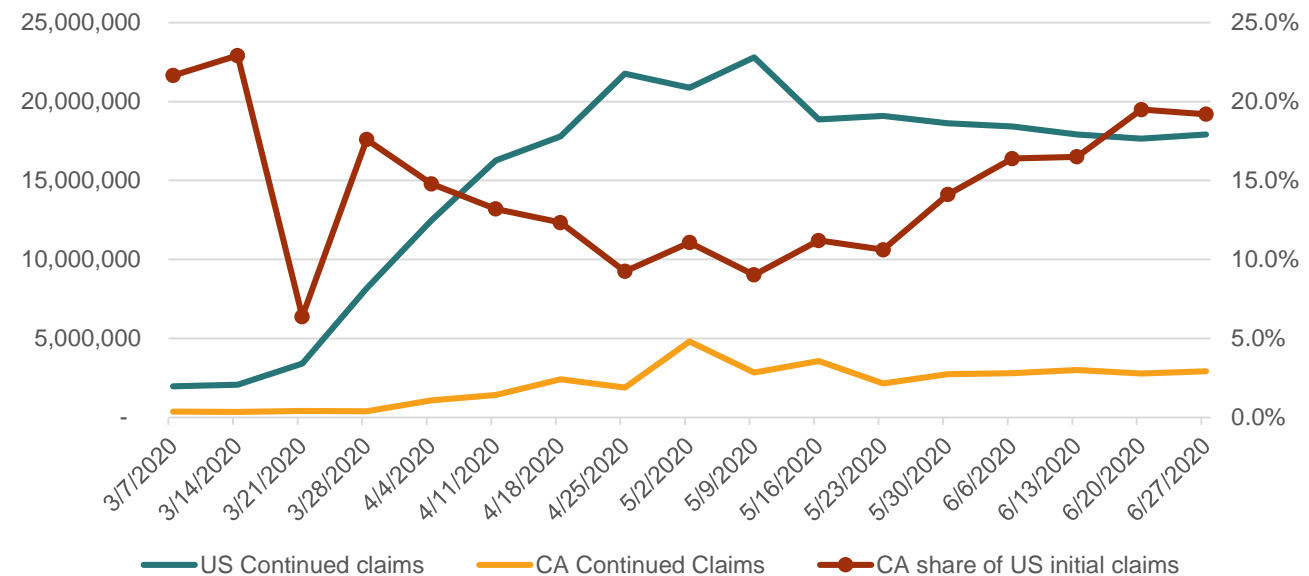


U.S. Bureau of Economic Analysis

Seasonally adjusted at annual rates

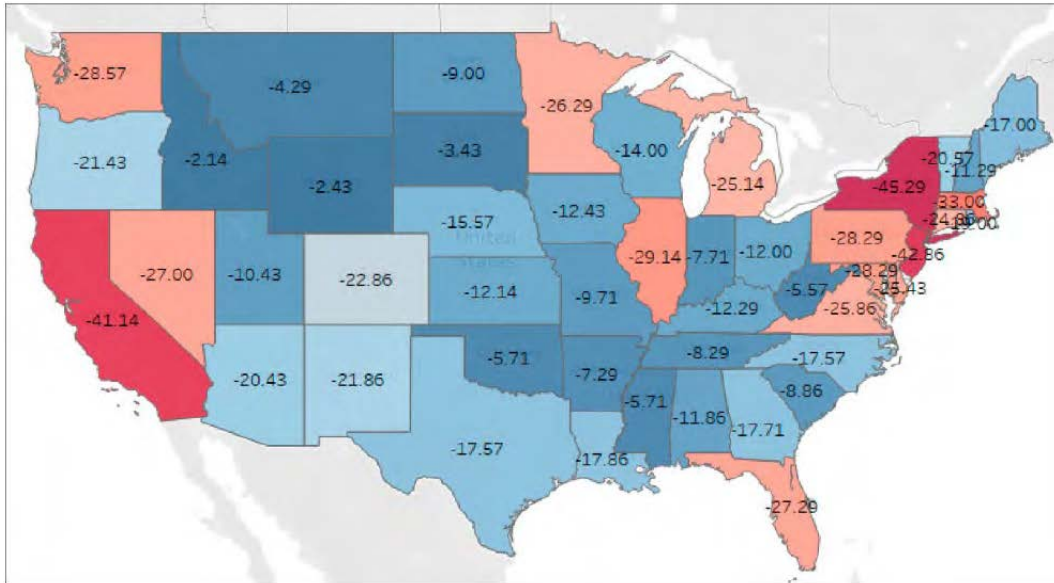
Source: USDOL

Unemployment Claims - Not Seasonally Adjusted



Preliminary Assessment: What is happening? Transportation

Figure 8 Mobility % Change from January to May 29: Visiting Retail and Recreation by U.S. State

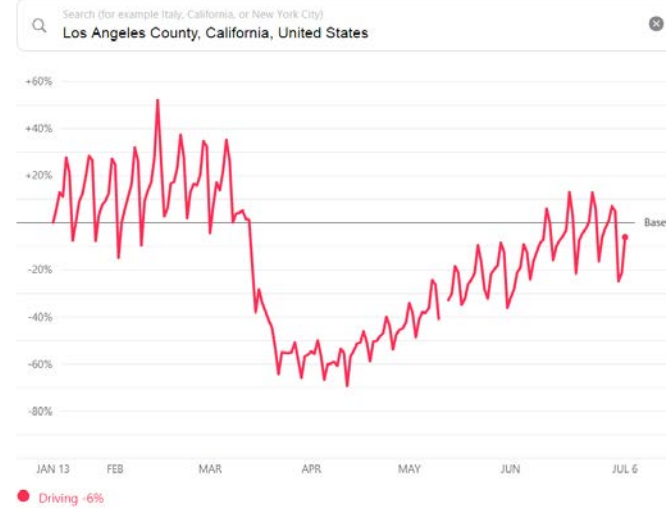


Source: Google

* Source: Apple COVID-19 mobility trends – direction requests compared to 1/13/2020

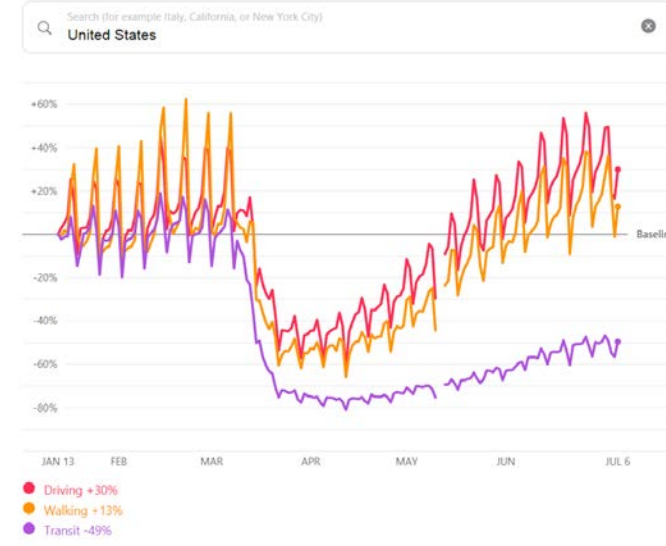
Mobility Trends

Change in routing requests since January 13, 2020



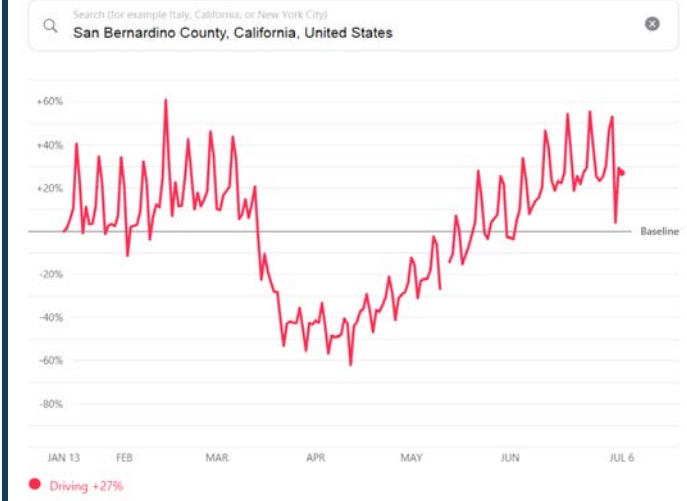
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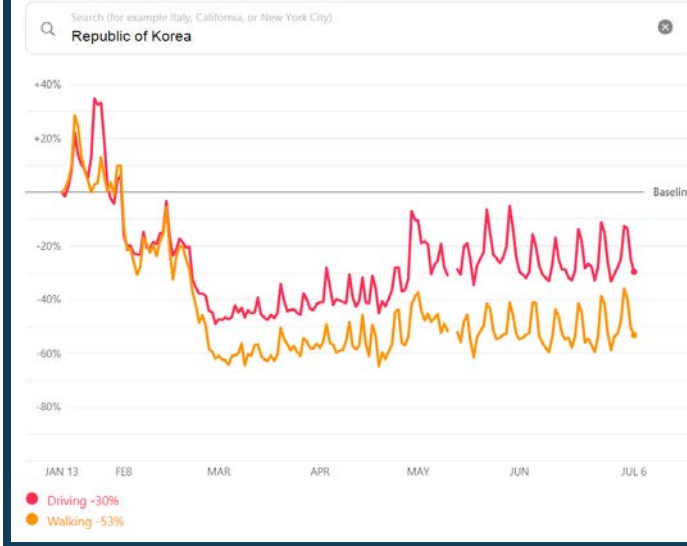
Mobility Trends

Change in routing requests since January 13, 2020



Mobility Trends

Change in routing requests since January 13, 2020



Preliminary Assessment: What is happening?

Other planning domains



- **Supply Chains and Global Demand**
 - Rail, truck, and port traffic declines
 - Erratic consumer demand and effect of lockdown on suppliers impacts supply chains
 - E-commerce puts pressure on warehousing and fulfillment
 - Significant air passenger declines (95% drop at LAX by mid-April)
- **Housing**
 - Temporary decline in transactions buffered by generally stable prices and starts
- **Public Finance**
 - Average SCAG region city gets 32.9% of its revenue from sales and hotel taxes
- **Environment and Sustainability**
 - Daily global carbon emissions dropped 17% in April, but by mid-June had returned to 5% below 2019 levels
 - Pandemic exposes key vulnerabilities – planning for the next disaster?

Preliminary Assessment: What is Happening?

Forecast Horizon

“The recovery will be fragile, partial, and slow”

Shutdown Period			Resuming Period								Recovery Period											
Mar 2020	Apr 2020	May 2020	Jun 2020	Jul 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	

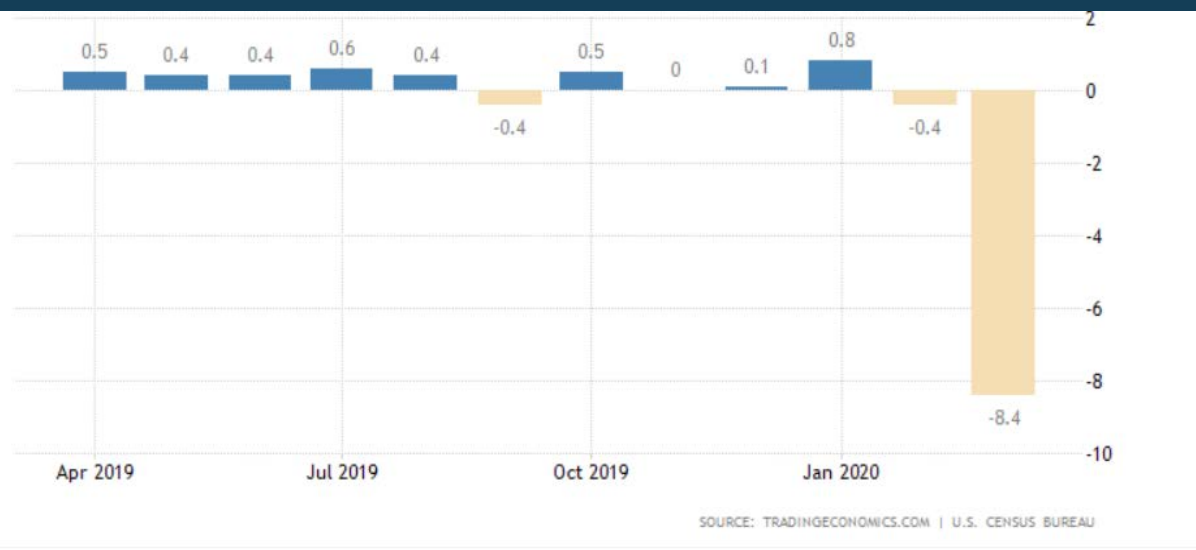
- June 2020 as a low point
- 18 months for vaccine development?
- No “second wave” explicitly modeled
- Further federal intervention not considered

Preliminary Assessment: Retail Trade & Taxable Sales

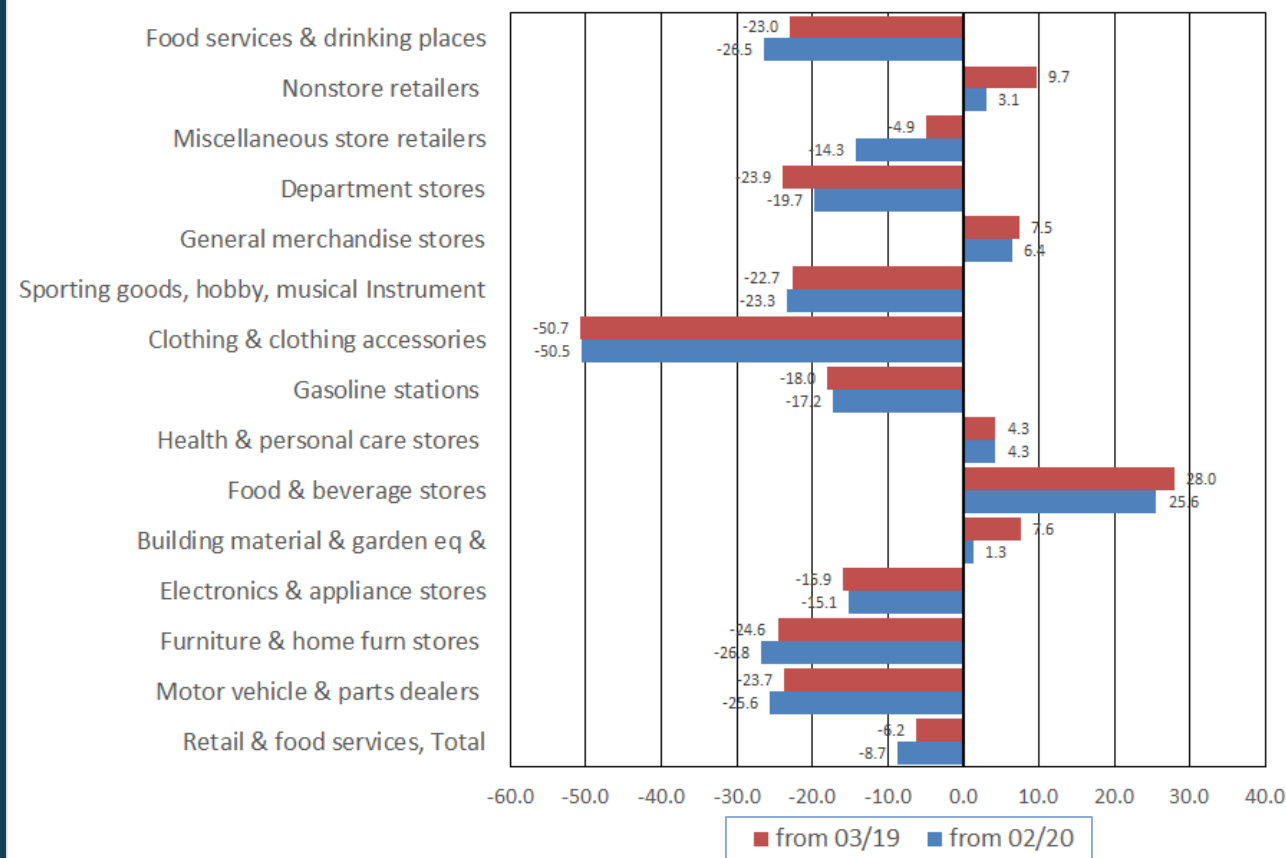
Economic Indicators

➤ Nationally, March retail sales dropped > 8% M/M

- Only about two weeks of March were under lockdown
- Not enough data yet for the full picture



Estimated % Change in March 2020 for Retail and Food Services



Preliminary Assessment: Retail Trade & Taxable Sales

Overall Approach



- Understanding this sector is a high priority due to reliance on sales and use taxes for municipal finance and transportation funding
- Data was limited at the time of our analysis (mid- April)
 - CDTFA data on taxable sales by sector only through 2019- Q4
 - MARTS Monthly Advance Retail Trade Survey (partial sample) through Mar- 2020
 - IHS Markit Composite (for non- retail sales context) through early Apr- 2020
- Each industry sector was analyzed separately...
 - Widely varying impacts in MARTS data for March suggests that recovery trajectory will also vary by sector (e.g., restaurants down but grocery up)
 - Widespread unemployment likely to be a long- term drag on certain purchases
- ... but taxable sales effects analyzed all six counties combined
 - Geographic differences to be expected, but insufficient localized data available to guide the first- cut forecast

Preliminary Assessment: Retail Trade & Taxable Sales

Scenario Development



- Baseline for comparison: recent analysis conducted for the RTP/SCS suggests that long run growth in taxables sales in the SCAG region is typically $>1\%$ per year
- Opted for a simplified analysis with a common timeline:
 - Jan & Feb = same as average month in 2019
 - Mar- May = significant economic disruption
 - Jun onward = straight- line recovery (i.e., no second wave)
- Scenarios used to explore a range of possible outcomes:
 - Slope of recovery was determined by estimating different Dec- 2021 endpoints for each sector as a “share of normal” relative to 2019
 - Due to significant uncertainty in the probable course of the pandemic, also tested the effect of adjusting all asserted inputs from Apr- 2020 onward by $\pm 10\%$

Preliminary Assessment: Retail Trade & Taxable Sales

Exploratory Scenarios

- Return to 100% of pre- COVID level by Dec- 2021 – This is a decrease of 23% compared to Baseline.
- Return to 84% of pre- COVID level by Dec- 2021 – Using the Great Recession as a benchmark, this scenario results in a loss of 30% over the two- year forecast period.
- Most industries return to 84% of prior level, except for key changes to food & durables – This scenario would be 32% below Baseline.

FIGURE 3 Annual Taxable Sales In the SCAG Region (Exploratory Scenarios, CY2019 to CY2021)

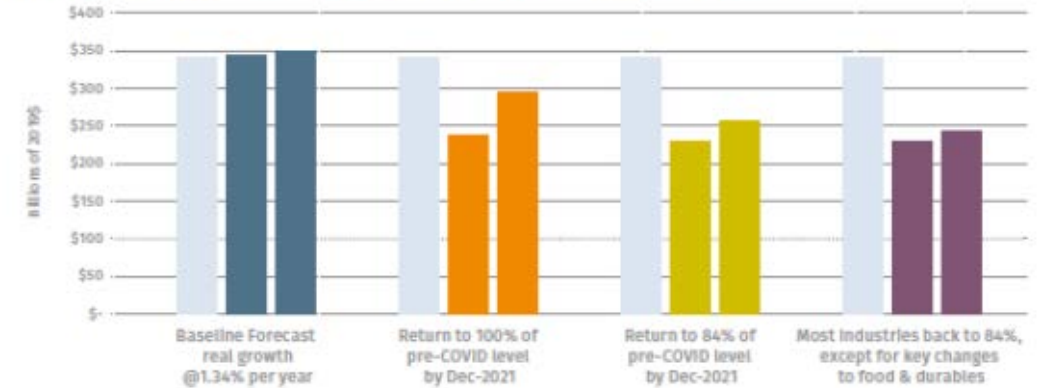
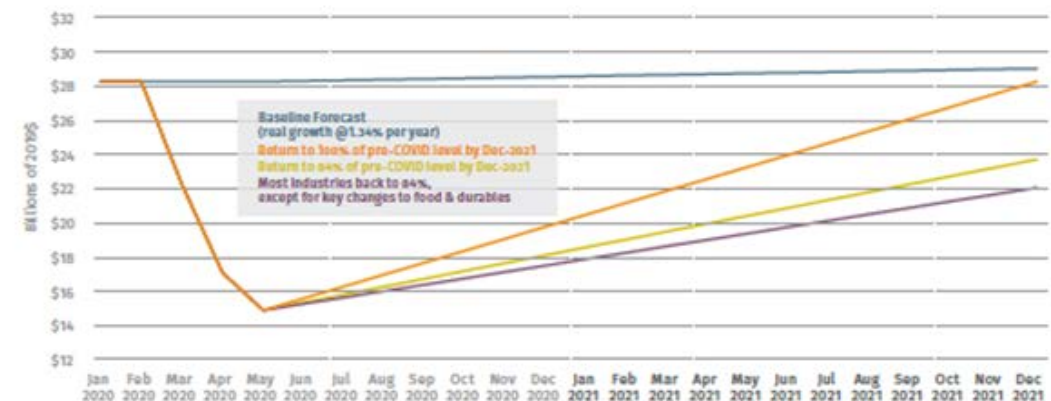


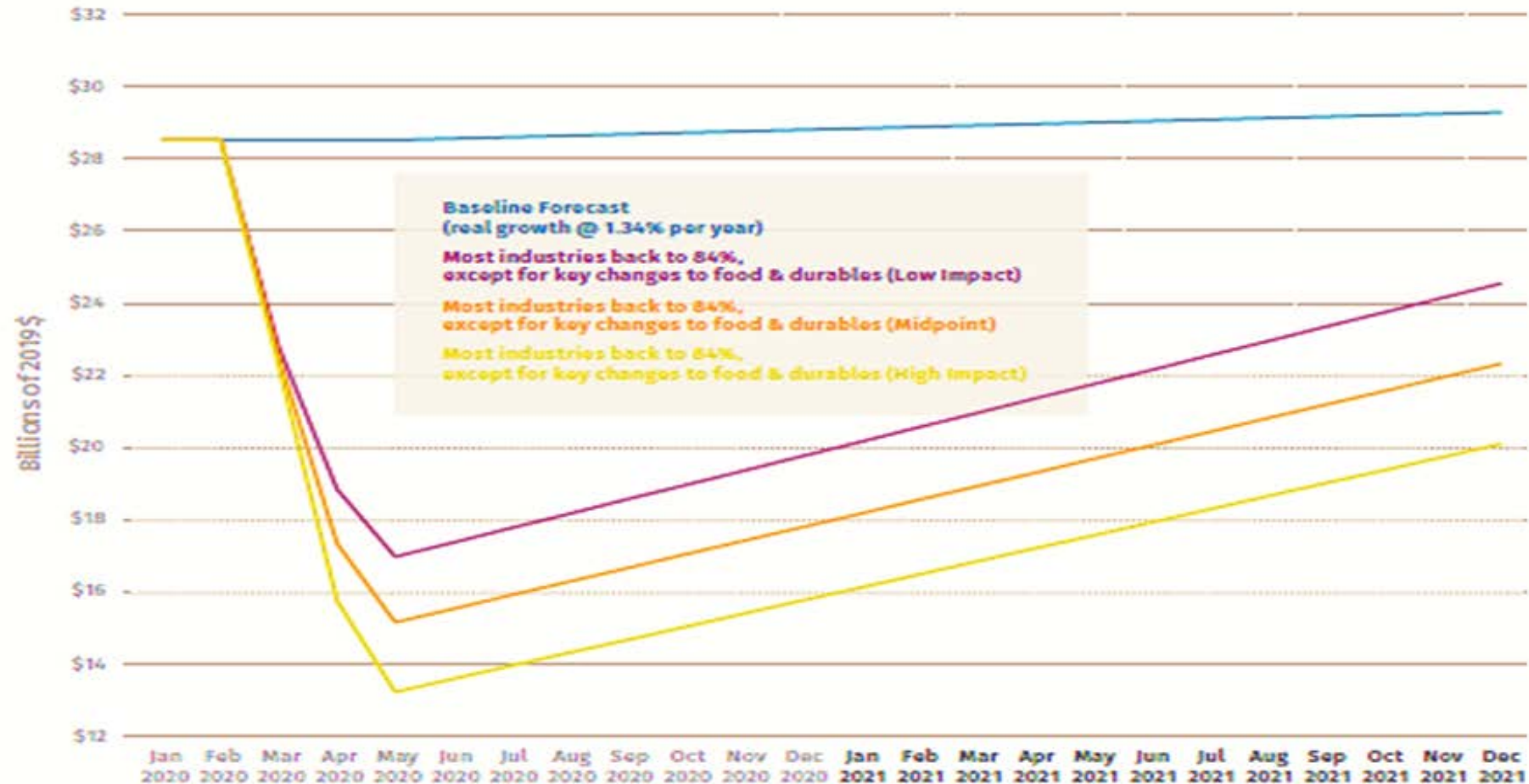
FIGURE 4 Total Taxable Sales In the SCAG Region by Month (Exploratory Scenarios, Jan-2020 to Dec-2021)



Preliminary Assessment: Retail Trade & Taxable Sales

Low, Mid, & High Impact Ranges for Scenario 3

FIGURE 5 Total Taxable Sales In the SCAG Region, by Month (Preliminary Forecast Range, Jan-2020 to Dec-2021)



Preliminary Assessment: Retail Trade & Taxable Sales

Initial Results

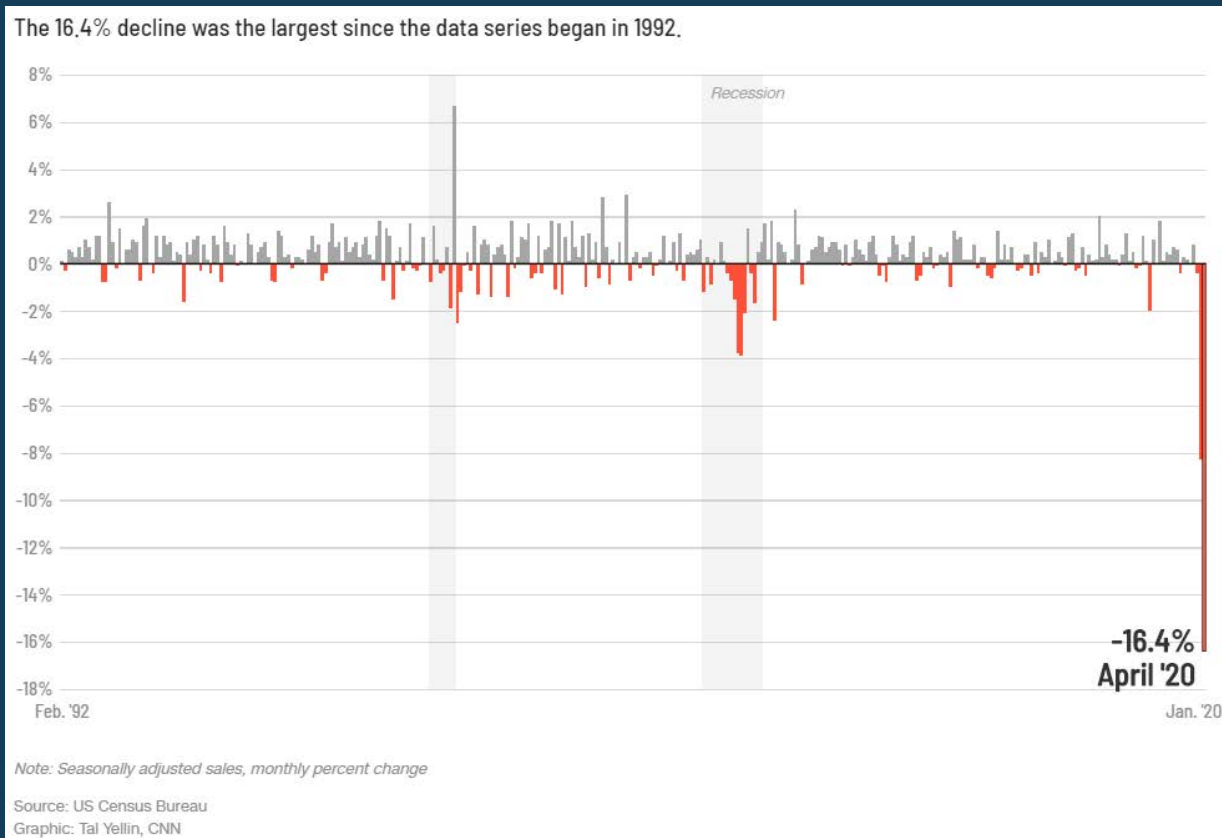


- Initial forecast on 4/28 estimated that taxable sales in the SCAG region for the two- year period of CY 2020- 2021 could decline by 26% to 38% relative to a low- growth baseline
 - Initially viewed as highly pessimistic
 - April retail trade data was in line with overall asserted inputs
 - Economic re- opening in May led to relative improvement earlier than our timeline
 - Recent resurgence of virus suggests an uneven road ahead
- Other caveats
 - Significant uncertainty on public health trajectory (treatments, vaccine, SIP)
 - Unclear whether additional government spending will backfill some of the losses
 - Analysis assumes steady recovery with supply- demand equilibrium throughout

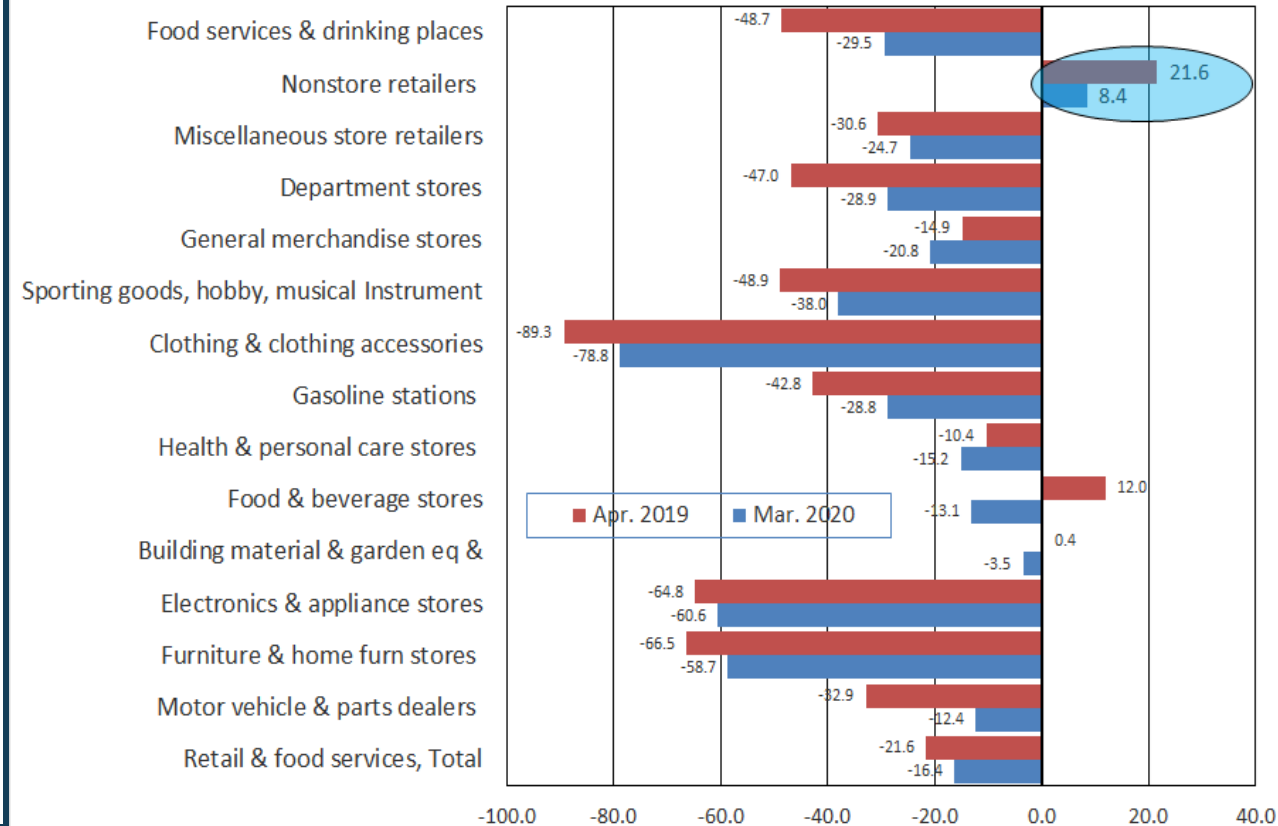
Preliminary Assessment: Retail Trade & Taxable Sales

Economic Indicators

- April retail sales collapsed, plunged a record 16.4%
- The first full month statistics under lockdown



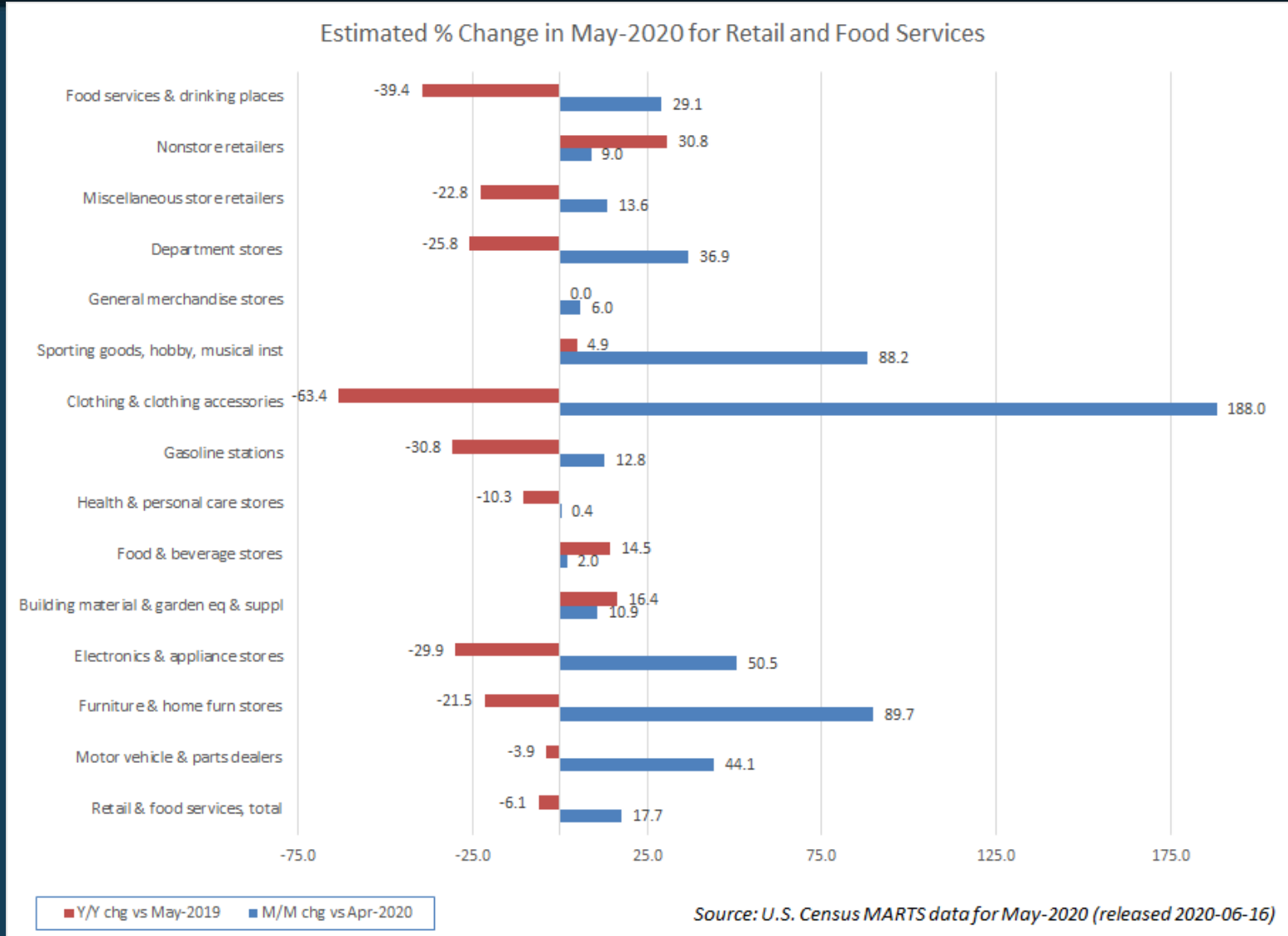
Estimated % Change in April 2020 for Retail and Food Services



Preliminary Economic Indicators: Retail Trade & Taxable Sales

Economic Indicators

- MARTS data for May shows improved M/M results vs April, but most sectors are still down Y/Y
- Online channels remain very strong even as brick & mortar starting to rebound.

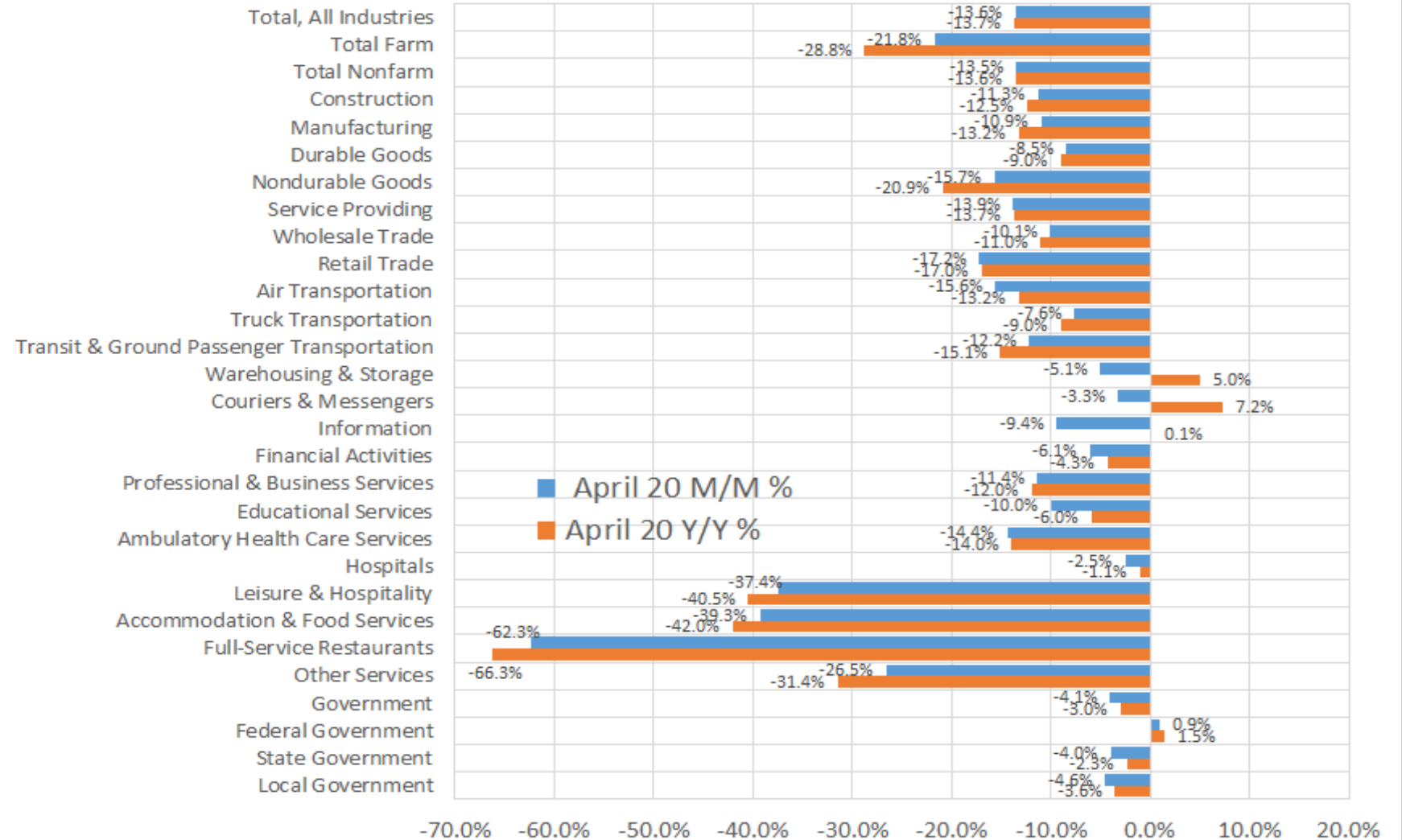


Preliminary Assessment: Employment

SCAG Region Month-to-Month and Year-to-year Sector Changes (April)



SCAG Region Employment By Major Industry Sector April 2020 Percent Changes



- Deep Job losses in:
- Leisure & Hospitality
 - Hotel/Food Services
 - Restaurants
 - Retail Trade
 - Non-durable manufacturing
 - Farm
 - Transit/ground transportation
 - Air/Truck Transportation

Preliminary Assessment: Employment

Selected industry-specific output assumptions used in REMI model

Durables Manufacturing	Assume a severe drop during the shutdown period (10%). Notably, much of American auto manufacturing is currently shuttered. Assume a return to 70% by the recovery period.
Nondurables Manufacturing	Assume a severe drop during the shutdown period (10%). Assume a more complete return to 90% during the recovery period compared to durables as demand remains stronger.
Retail & Wholesale	Informed by MARTA, assume 61% during shutdown period, rebounding to 70% during the recovery.
Tourism	National RevPAR data in early April indicate hotel activity at 16% of last year's levels, returning to 70% during the recovery.
Food & drink	Estimate 27% of capacity during shutdown, returning to 70% by recovery period.
Professional/ Business Services	Due to rapid adoption of telework, assume double the amount of BLS' "telework capable jobs," suggesting 80.1% capacity during shutdown. Return to 90% while resuming and 95% during recovery.

Preliminary Assessment: Employment

Selected industry-specific output assumptions used in REMI model (Continued)

Real Estate & Construction	NAHB West Region HMI index decrease implies a 39% level during shutdown period. Due to low existing supply, rebound quickly to 90-100% during resuming and recovery periods.
Telecom & Data Businesses	Indications that broadband usage has increased to 133% (see www.fiercetelecom.com); tapering off but remaining above 100% through 2021 as some of the increased teleworking may be here to stay.
Oil, Gas & Petroleum	Based on OPEC's 4/9 announcement of cuts in May and June, assume announced cuts in May/June, assume 92% during shutdown, 87% during resuming, and 93.5% during recovery period.
Air & Water Transport	Passenger traffic at LAX reported to have decreased by 95% as of mid-April; assume lower demand through the recovery period (to 70%). Use Port of Los Angeles mid-April reported capacity (80%) for shutdown period, increasing to 85% to roughly mirror manufacturing expectations in subsequent periods.
Local Government	Increased expectations for service coupled with lower tax revenue suggests lengthy impacts. Using one example of the City of Santa Monica's 38% FY21 shortfall expectation (while being 1.4 times as reliant on sales/hotel taxes as the average SCAG city) suggests an assumption of 73% during shutdown and 82% through 2021.
Federal & State Government	No change assumed.

Preliminary Assessment: REMI model

Adjusting National Control vs. Regional Simulation



- Regional Simulation (Assumed no economic migration)

Since COVID- 19 is a pandemic, economic migration response to expected income as a result of changing output in SoCal would be minimal

- Calculate annual output reduction as percentages for 72 REMI sectors for 2020 and 2021 based on assumption

Shutdown Period			Resuming Period								Recovery Period											
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Preliminary Assessment: Employment

REMI model results

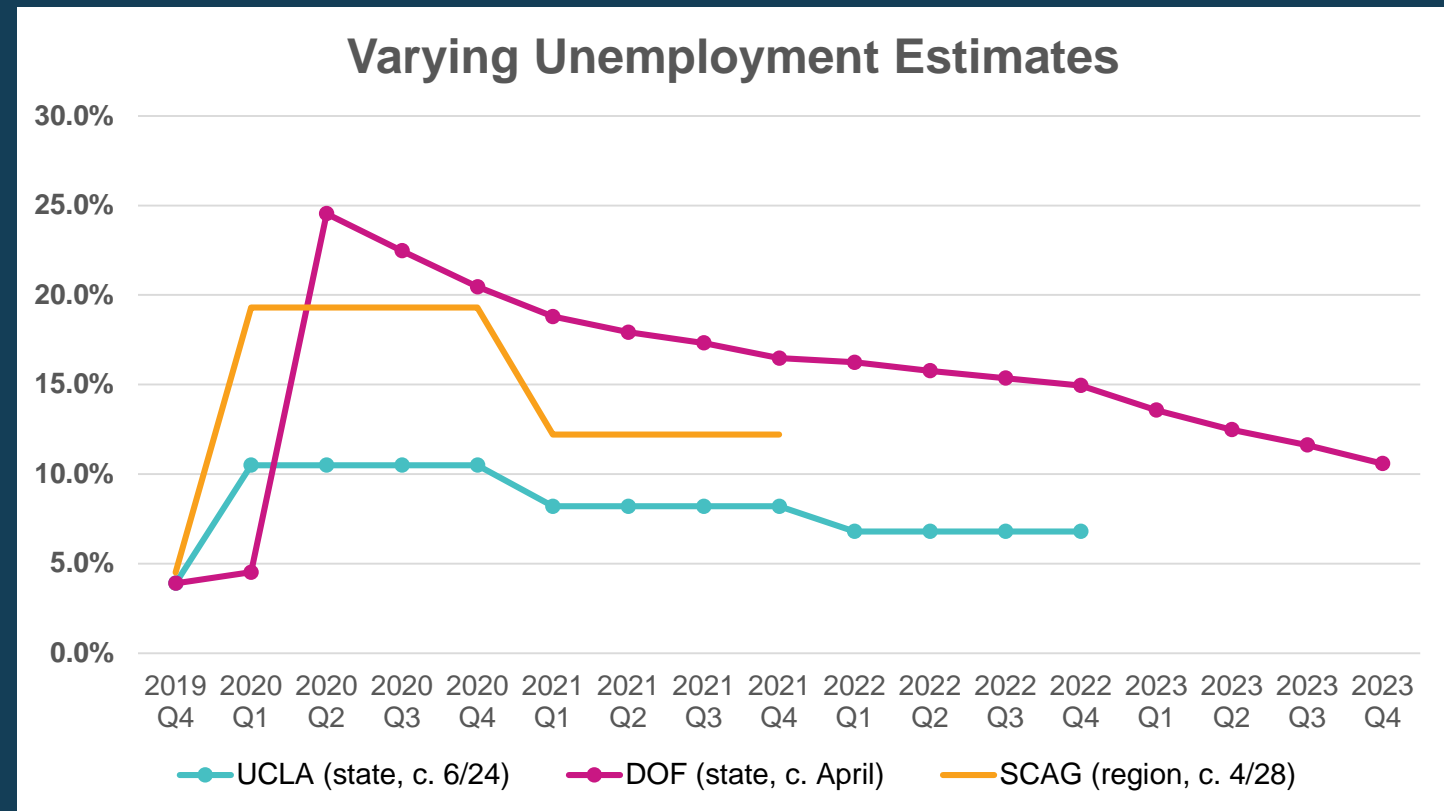
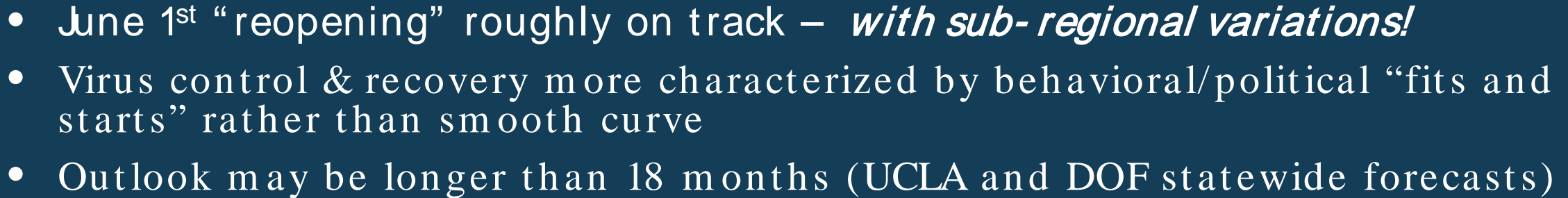
- In the SCAG region, estimated unemployment rates are 19.3% in 2020 and 12.2% in 2021.

TABLE 7 Preliminary Assessment of Potential Impact of COVID-19 Output Shocks on Annual Employment, SCAG Region

	2019	2020		2021	
	Observed Unemployment Rate	Estimated Employment Change	Estimated Unemployment Rate	Estimated Employment Change	Estimated Unemployment Rate
Imperial County	18.2%	-8,800	27.6%	1,400	26.1%
Los Angeles County	4.4%	-760,900	19.5%	378,300	12.0%
Orange County	2.8%	-295,400	19.0%	158,100	10.3%
Riverside County	4.2%	-130,100	19.5%	41,000	14.7%
San Bernardino County	3.8%	-123,700	18.2%	34,300	14.2%
Ventura County	3.6%	-52,400	18.2%	20,700	12.4%
SCAG Region	4.1%	-1,371,300	19.3%	633,800	12.2%

- Estimate unemployment rate by county for 2020 and 2021.
- Percent year over year employment change: REMI outputs include total yearly employment by counties for the output reduction scenario.
- Estimate 2020 unemployment rate: CA EDD provides total employment, civilian employment, unemployment, and unemployment rate. Unemployment rates are estimated by applying REMI output and CA EDD data

How did our employment projection compare to others?



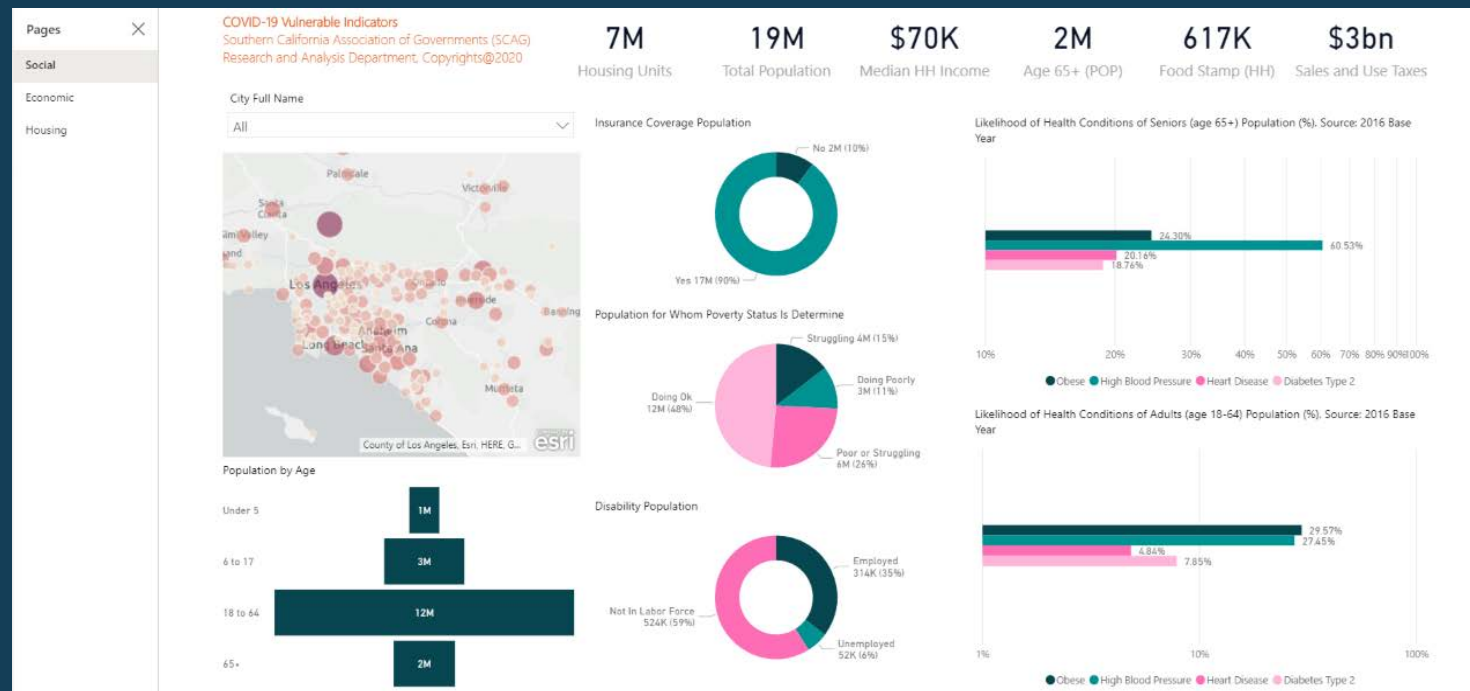
Conclusions: *Local Vulnerabilities*

- **Vulnerability Dashboard**

- Experience of COVID and economic recovery will differ by city

- Dashboard:

<http://scag.maps.arcgis.com/apps/opstdashboard/index.html#/50a14802c1bd431e8f30ba0d8bbdcb03>



Conclusions:

Planning for the Recovery



- **Adopt and Implement long- range regional plans!**
 - Securing state and federal certifications (air pollution, GHG impacts)
 - Leveraging of stimulus funds
- **Regional Housing Program**
 - Major increase in funds begun in 2020
 - Resources for local jurisdictions to increase housing production and link with regional sustainability/equity objectives
- **SoCal Economic Growth and Job Creation Strategy**
 - Opportunity to create an *equitable* recovery
 - Support to navigate state & federal programs
 - Additional technical assistance for cost- savings (e.g. GIS, local plan updates, coordinated data purchases)



Questions?
Comments?

Read more at:

www.connectsocal.org

www.scag.ca.gov

