



HAWAII  
AGRICULTURAL  
FOUNDATION

EAT THINK DRINK

ONLINE  
6PM - 7PM (HST)



OPEN FOR BUSINESS SERIES:

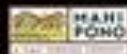
THE NEW NORMAL FOR RESTAURANTS

THURSDAY, SEPTEMBER 10, 2020

IN PARTNERSHIP WITH



SEASIDE  
RESTAURANTS  
OF HAWAII



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# EAT**THINK**DRINK 11

*A webinar presentation prepared for the*  
**Hawaii Agricultural Foundation**  
Open for Business Series:  
The New Normal for Restaurants

by Paul H. Brewbaker, Ph.D., CBE  
TZ Economics, Kailua, Hawaii  
September 10, 2020



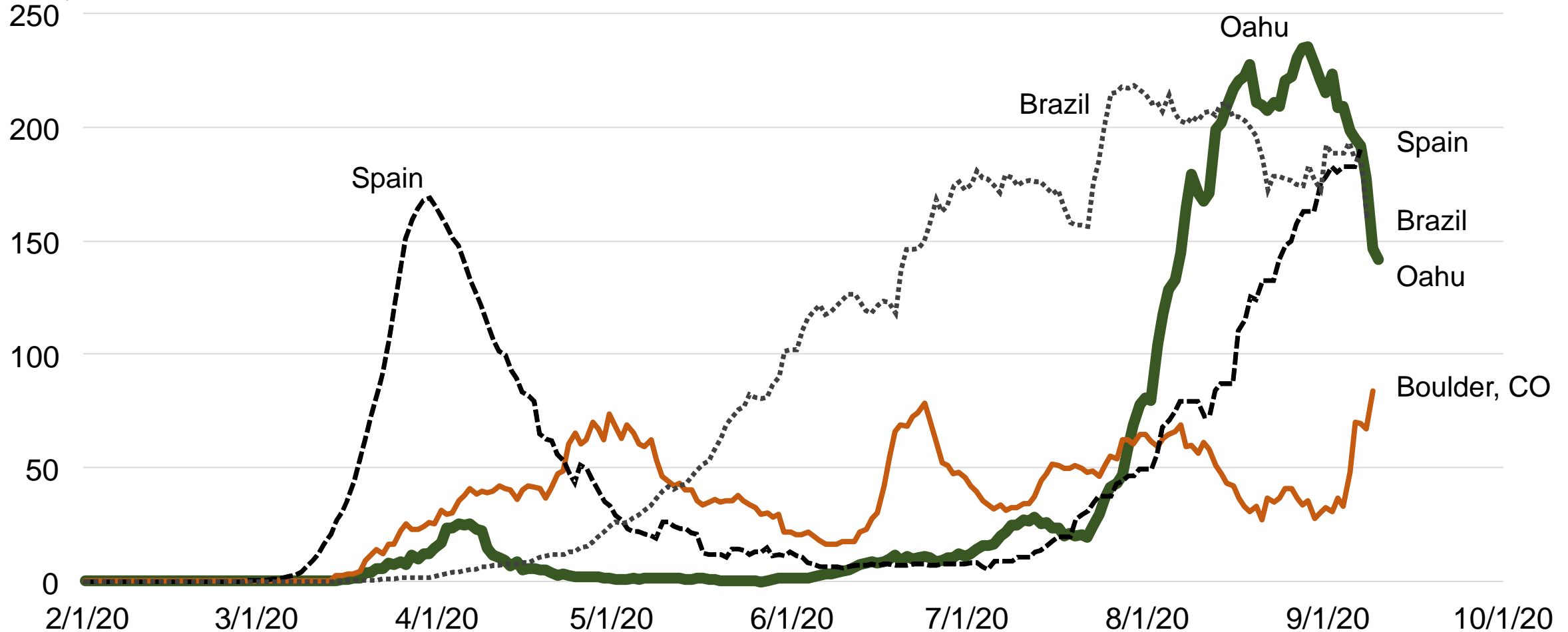


**Why more lockdown? Because—this month—it was so good Oahu was worse than Spain, Brazil, even worse than Maricopa County, Arizona**

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# Spain re-opened tourism this summer and got second wave, Oahu had NO tourism but got bucks-for-lolos—worse than Brazil (ouch)

Daily new COVID-19 cases/million people

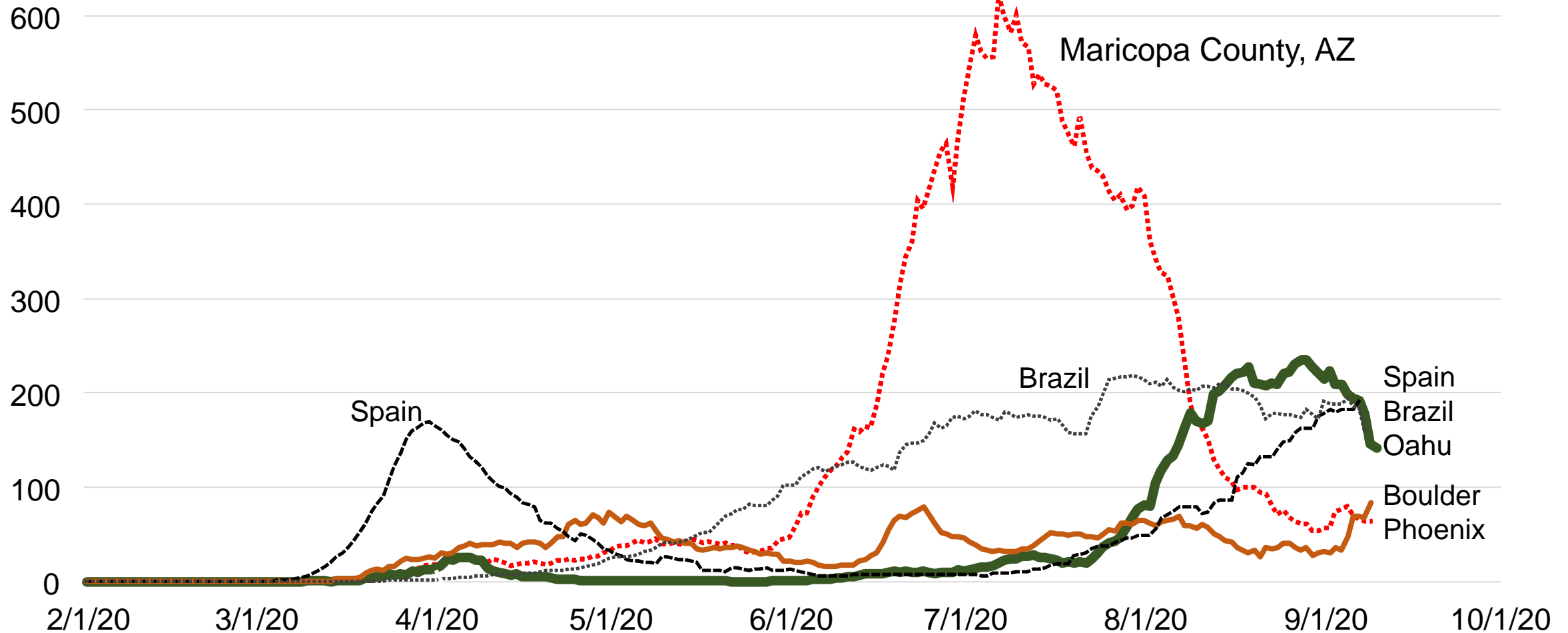


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Sources: Johns Hopkins CSSE data repository via Github ([https://github.com/CSSEGISandData/COVID-19/blob/master/csse\\_covid\\_19\\_data/csse\\_covid\\_19\\_time\\_series/time\\_series\\_covid19\\_confirmed\\_US.csv](https://github.com/CSSEGISandData/COVID-19/blob/master/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19_confirmed_US.csv)), Hawaii Data Collaborative ([https://docs.google.com/spreadsheets/d/1sd-L317Je9ZhiQh3\\_uH9jTkl3ckc\\_o3sgrVauShcwCk/edit#gid=0](https://docs.google.com/spreadsheets/d/1sd-L317Je9ZhiQh3_uH9jTkl3ckc_o3sgrVauShcwCk/edit#gid=0)), Google; Oahu daily data through September 9, 2020; others through September 8.

Could be worse like Phoenix, Arizona in July, but the point is *not* to:  
Fearless Leader: “it is what it is”... it ain’t over ‘til it’s over (bucks etc.)

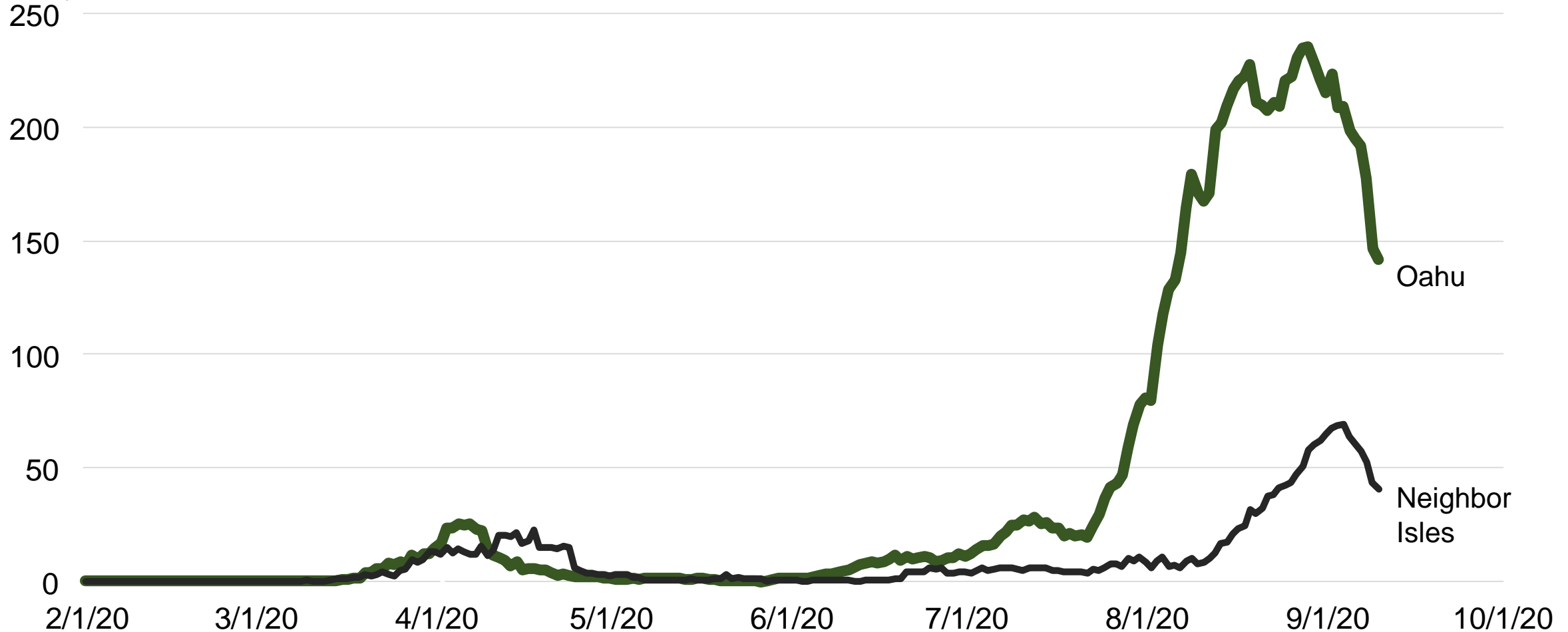
Daily new COVID-19 cases/million people



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# Oahu needed a lockdown for the last month; Neighbor Isles only had isolated clusters but lost almost ½ of all economic activity (tourism)

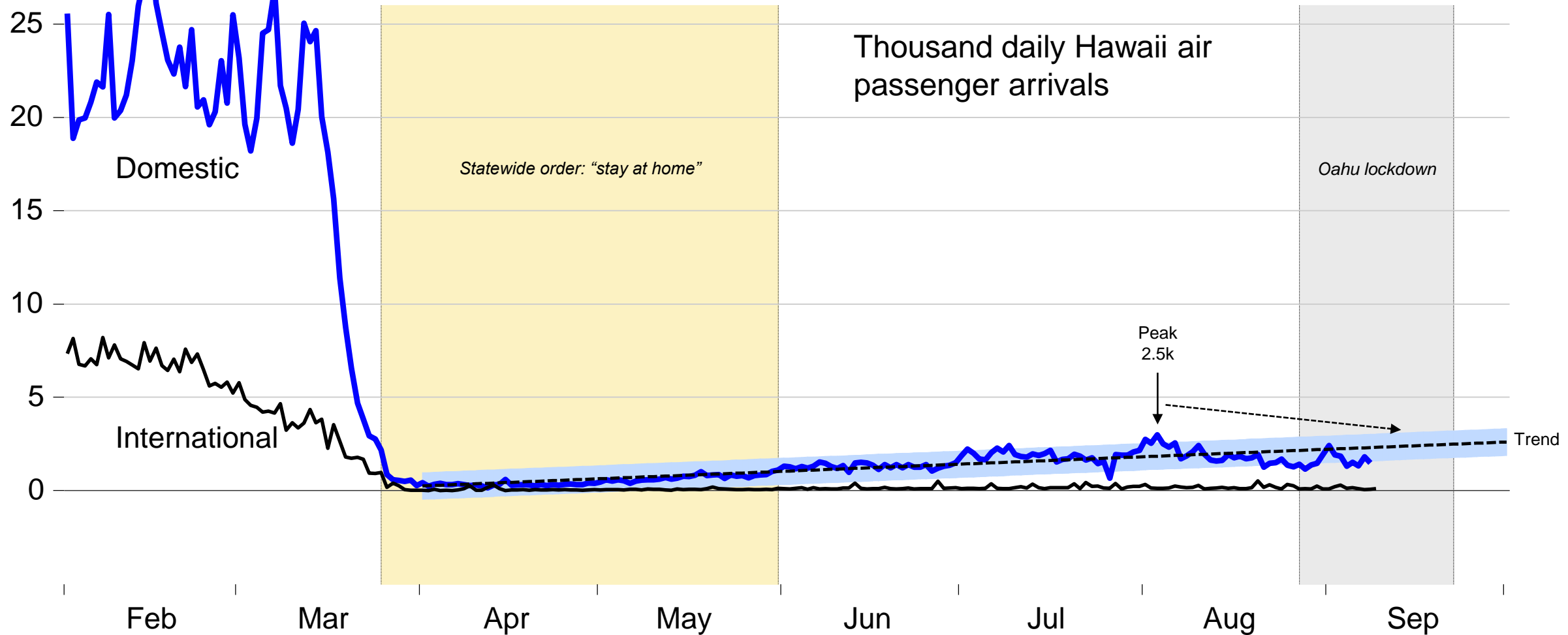
Daily new COVID-19 cases/million people



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Sources: Johns Hopkins CSSE data repository via Github ([https://github.com/CSSEGISandData/COVID-19/blob/master/csse\\_covid\\_19\\_data/csse\\_covid\\_19\\_time\\_series/time\\_series\\_covid19\\_confirmed\\_US.csv](https://github.com/CSSEGISandData/COVID-19/blob/master/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19_confirmed_US.csv)), Hawaii Data Collaborative ([https://docs.google.com/spreadsheets/d/1sd-L317Je9ZhiQh3\\_uH9jTkl3ckc\\_o3sgrVauShcwCk/edit#gid=0](https://docs.google.com/spreadsheets/d/1sd-L317Je9ZhiQh3_uH9jTkl3ckc_o3sgrVauShcwCk/edit#gid=0)), Google; Hawaii data through September 7, 2020; Brazil through September 8.

# 14-day travel quarantine is to blame? Then why did arrivals drop before the quarantine? Why decline from Aug-Sep? SARS-CoV-2



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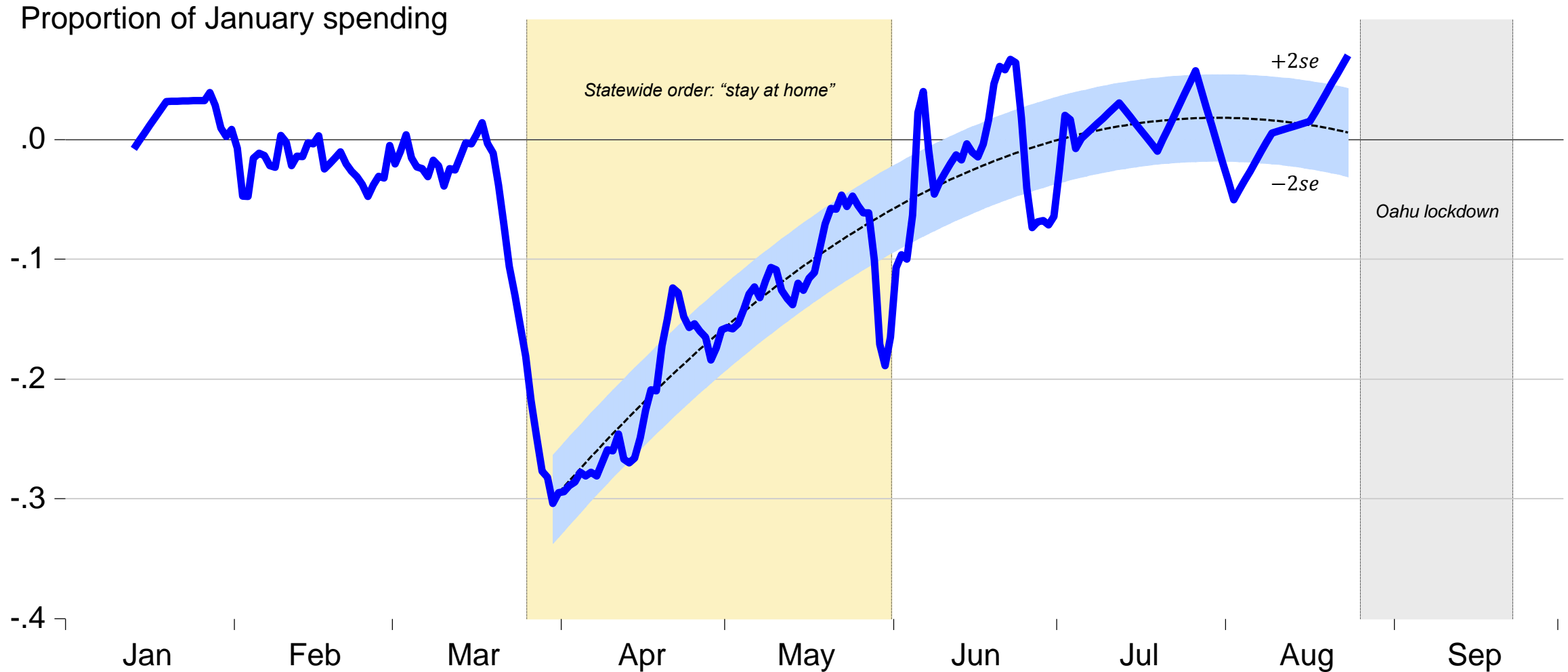


# Another legacy of COVID-19: amazing daily data sets

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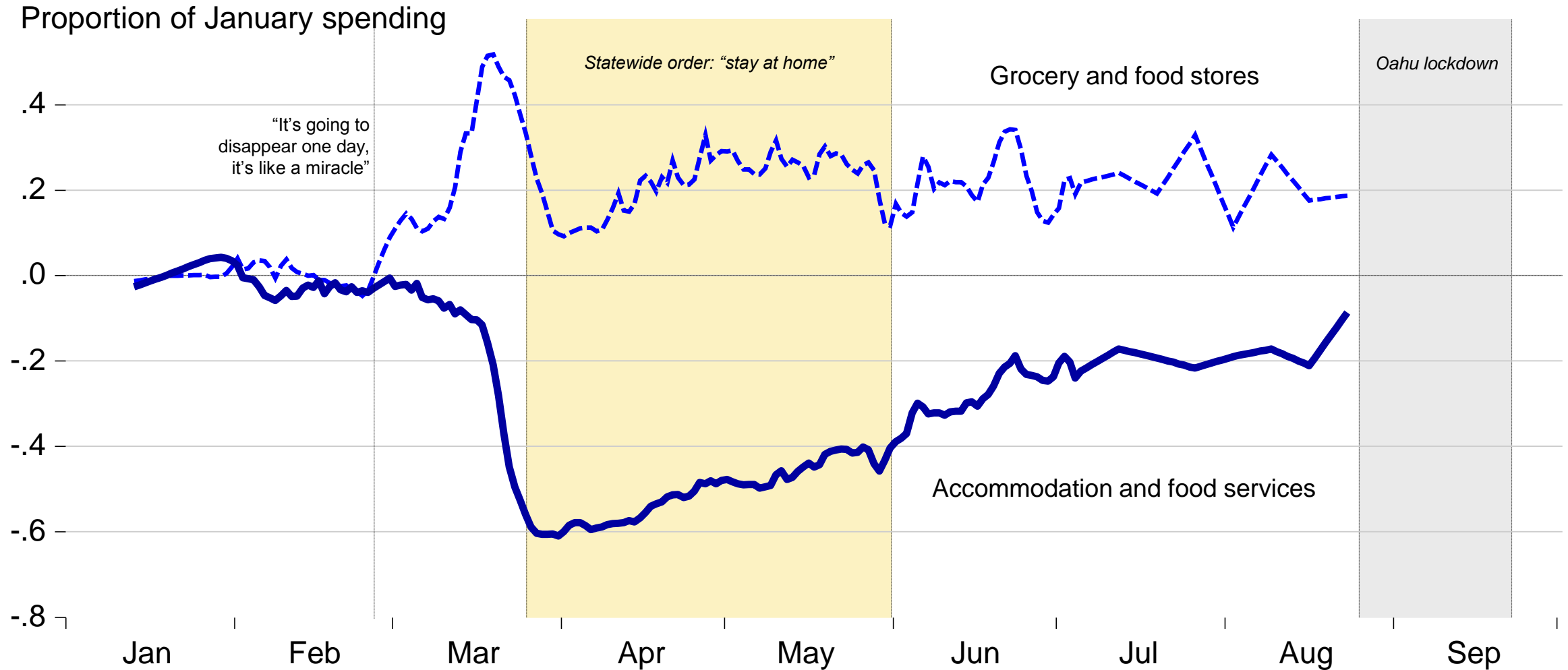
# Daily Oahu resident spending dropped *before* each lockdown, more precipitously in March but probably in early-August as well



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Sources: Opportunity Insights (<https://tracktherecovery.org/>), daily data on Oahu resident daily debit and credit card use through August 23, 2020 from Affinity Solutions; see Raj Chetty, John N. Friedman, Nathaniel Hendren, Michael Stepner, and the Opportunity Insights Team (June 17, 2020) "How Did COVID-19 and Stabilization Policies Affect Spending and Employment? A New Real-Time Economic Tracker Based on Private Sector Data" ([https://opportunityinsights.org/wp-content/uploads/2020/05/tracker\\_paper.pdf](https://opportunityinsights.org/wp-content/uploads/2020/05/tracker_paper.pdf))

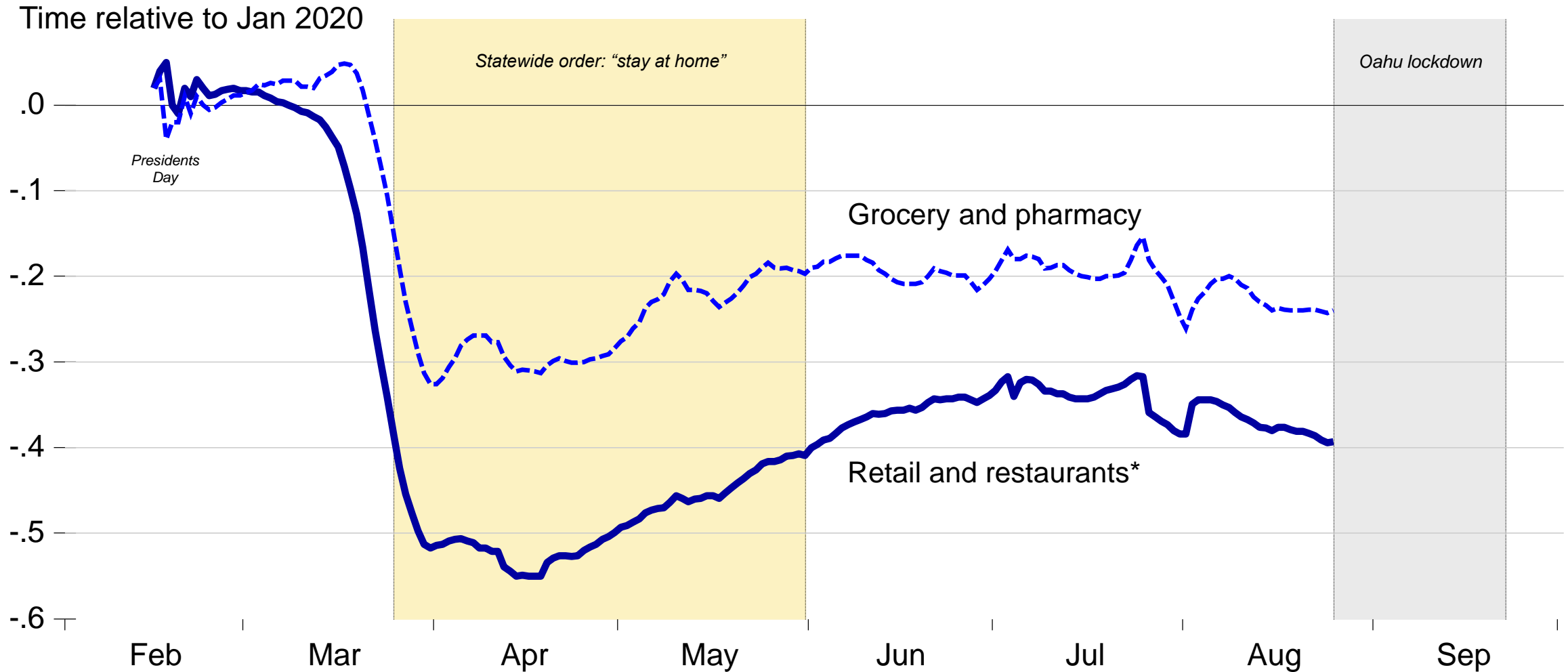
# Consumption-led recession: risk-averse local households reacted to SARS-CoV-2 by reducing consumption, *switching* to food-at-home



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Sources: Daily data through August 22, 2020 or earlier; Opportunity Insights (<https://tracktherecovery.org/>), seasonally-adjusted credit/debit card spending from Affinity Solutions (relative to Jan. 4-31), time spent outside of residential locations from Google Mobility (indexed to Jan. 3-Feb. 6), percent change in number of small businesses open from Womply (indexed to Jan. 4-31), Hawaii Department of Health Infectious Disease Branch (<https://health.hawaii.gov/coronavirusdisease2019/>), Hawaii Data Collaborative ([https://docs.google.com/spreadsheets/d/1sd-L317Je9ZhiQh3\\_uH9jTkl3ckc\\_o3sgrVauShcwCk/edit#gid=0](https://docs.google.com/spreadsheets/d/1sd-L317Je9ZhiQh3_uH9jTkl3ckc_o3sgrVauShcwCk/edit#gid=0)).

# Google mobility data corroborate endogenous behavioral change: spending at groceries is higher, but time spent is lower than before

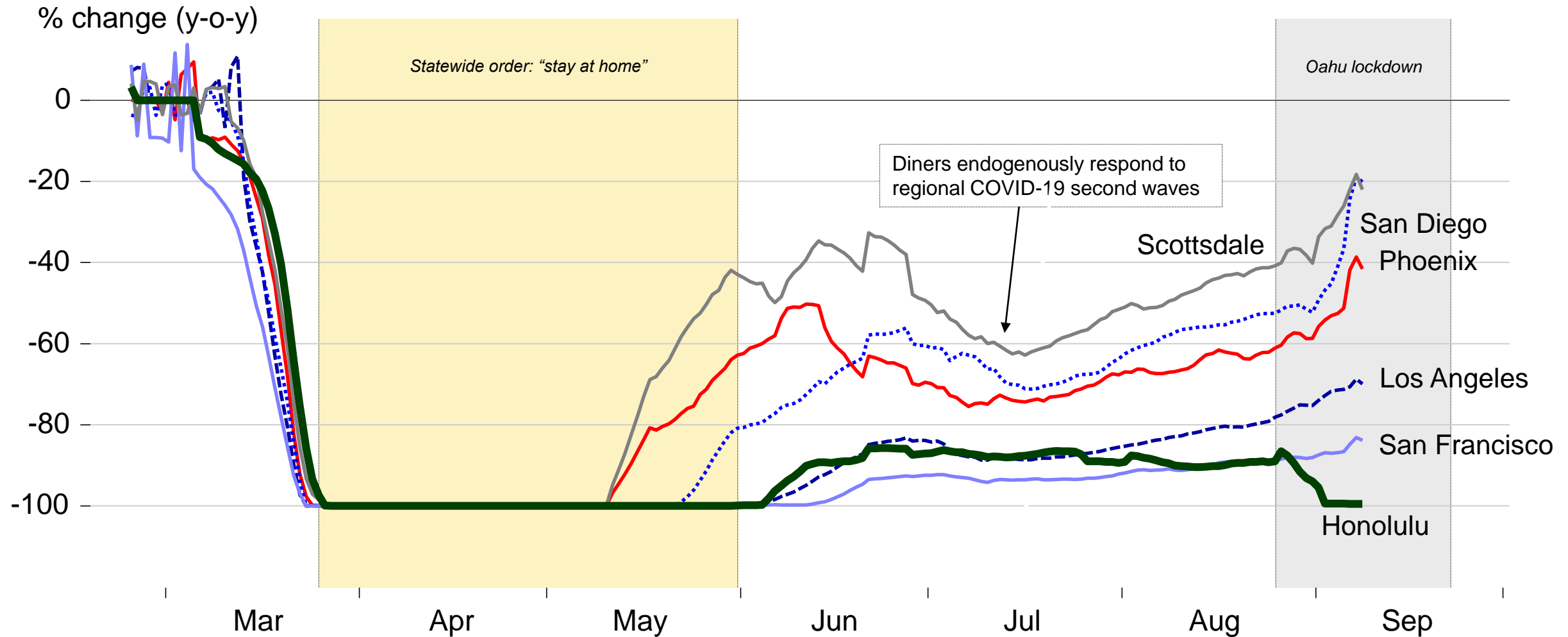


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Source: Google Mobility, via Opportunity Insights (<https://tracktherecovery.org/>), daily data through August 25, 2020; see Raj Chetty, John N. Friedman, Nathaniel Hendren, Michael Stepner, and the Opportunity Insights Team (June 2020) "How Did COVID-19 and Stabilization Policies Affect Spending and Employment? A New Real-Time Economic Tracker Based on Private Sector Data" ([https://opportunityinsights.org/wp-content/uploads/2020/05/tracker\\_paper.pdf](https://opportunityinsights.org/wp-content/uploads/2020/05/tracker_paper.pdf)). \*On screen labeling at <https://tracktherecovery.org/> says this, but actual data download is called "gps\_retail\_and\_recreation"



# Geometric average of y-o-y percent changes in same-day seated diners in OpenTable.com network, all channels: online, phone, and walk-ins



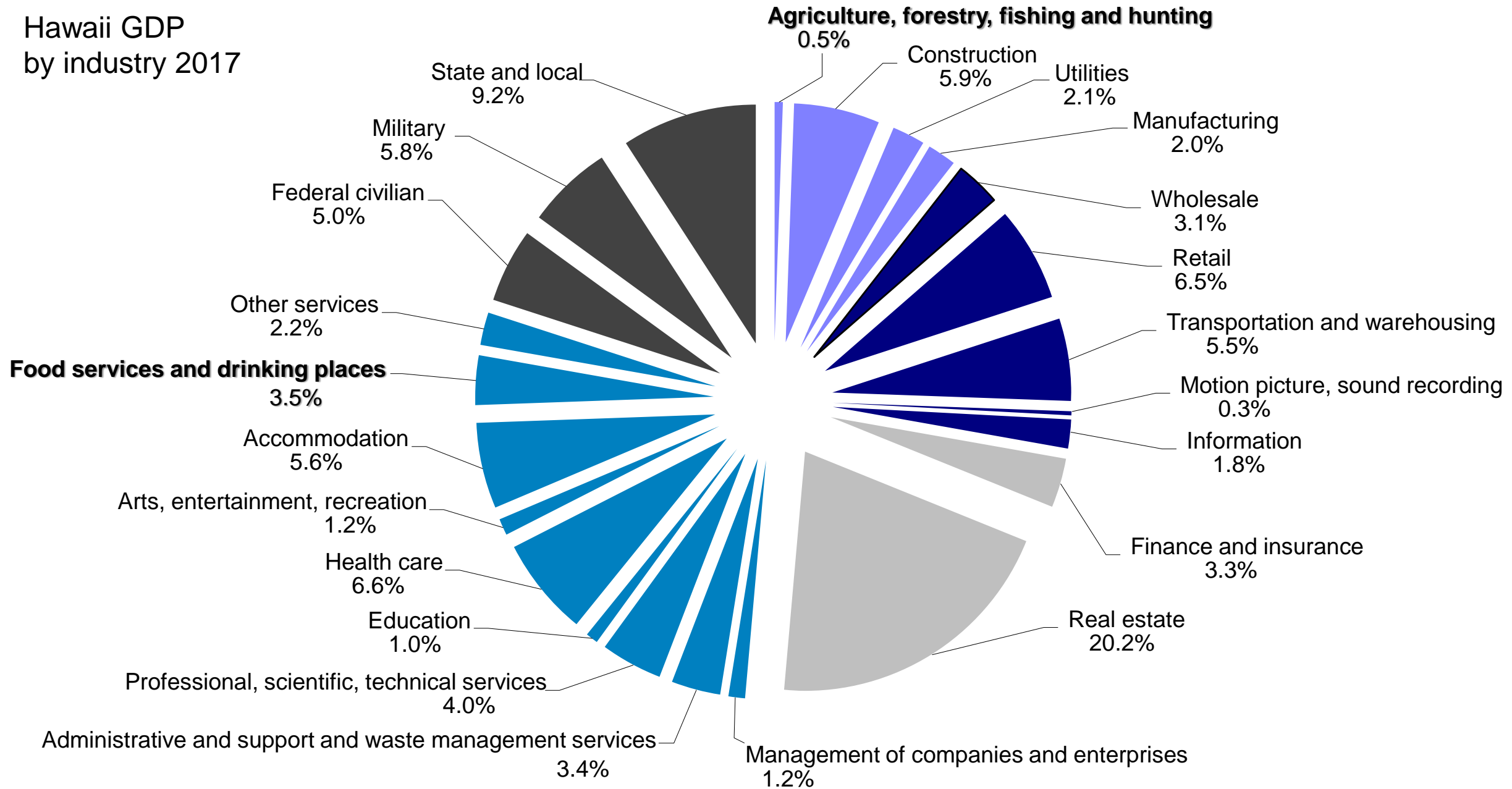
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**Agriculture Hawaii: 60 percent of employment 1920, 0.6 percent 2010; now, so small *it isn't even counted*—a testimony to productivity growth**

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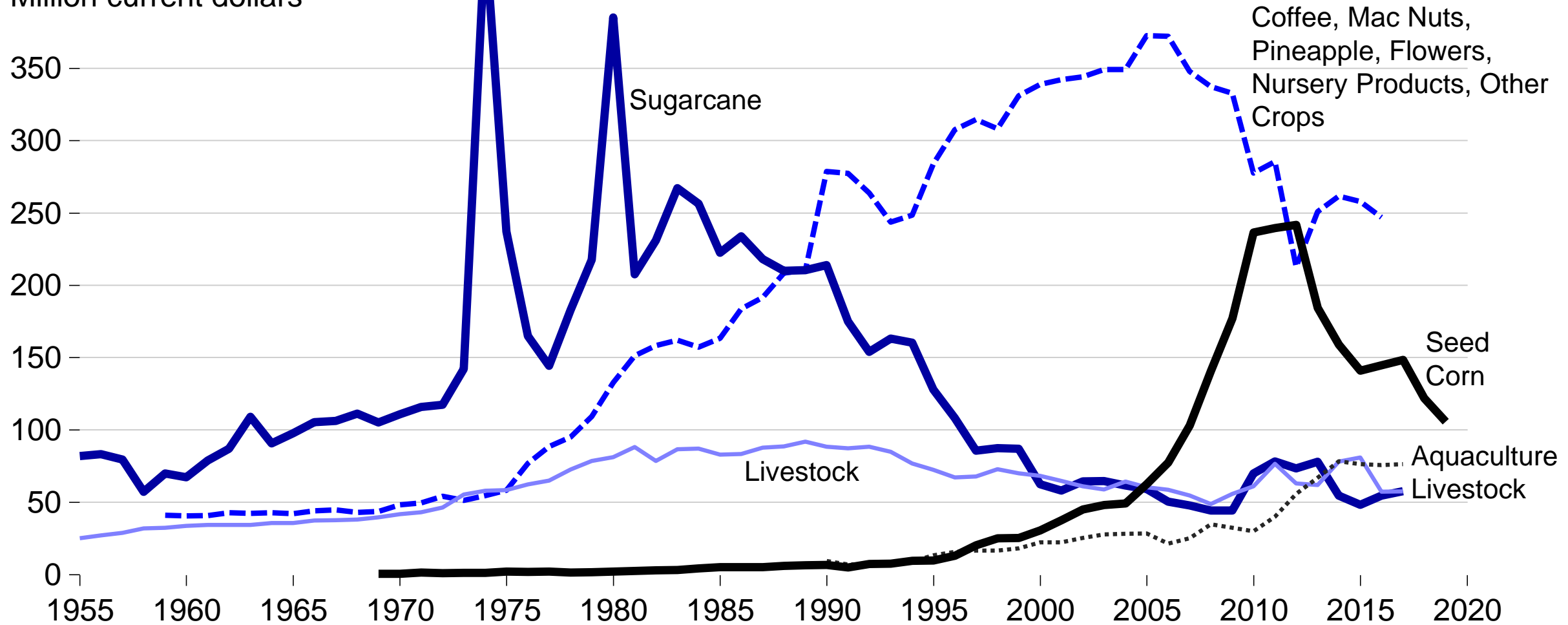
# Hawaii GDP by industry 2017





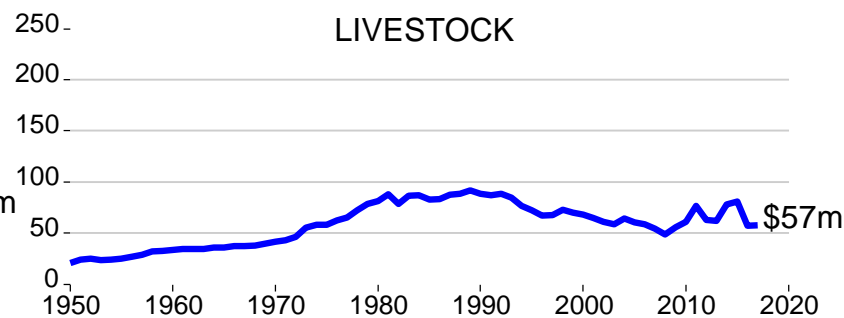
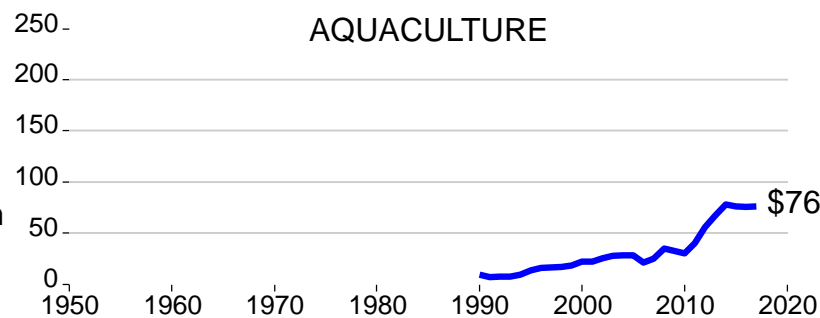
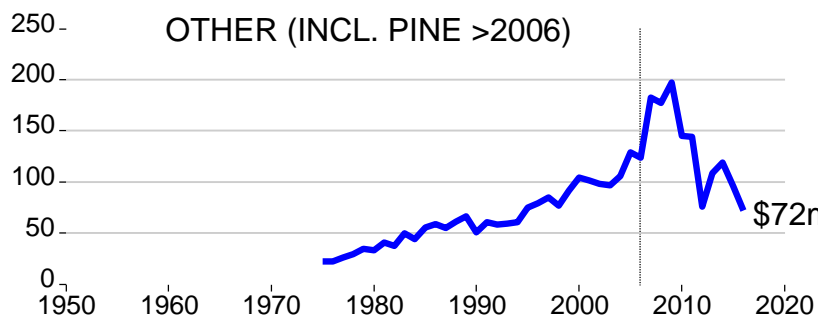
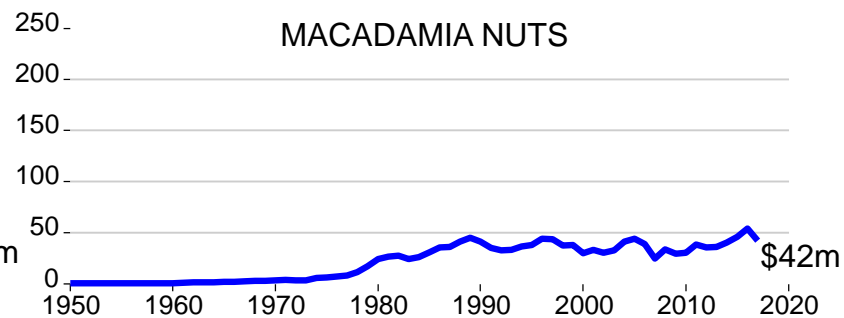
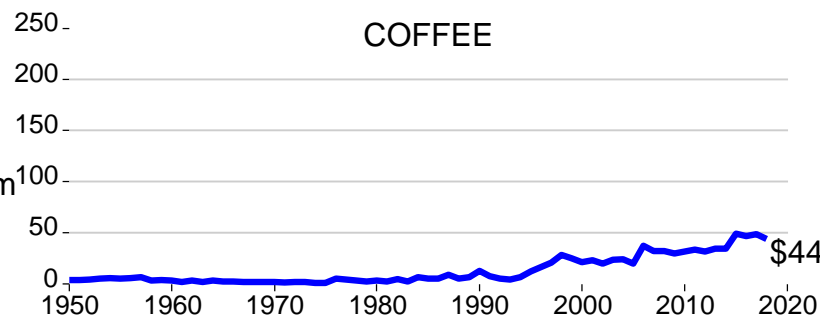
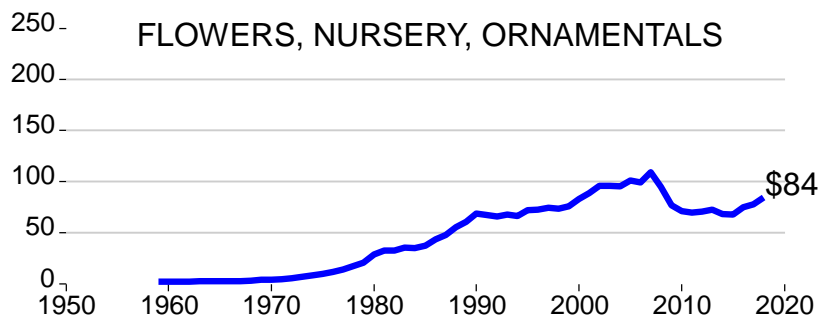
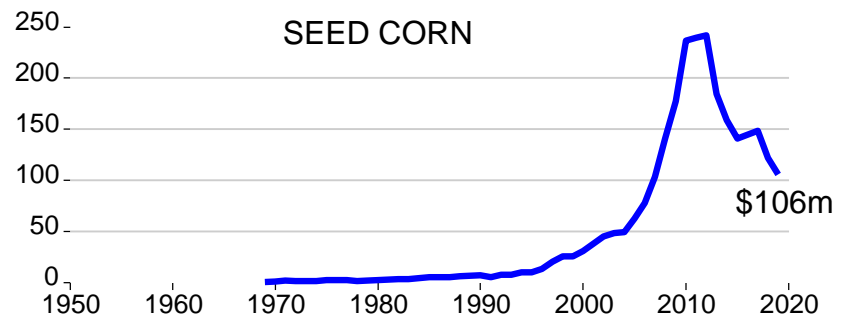
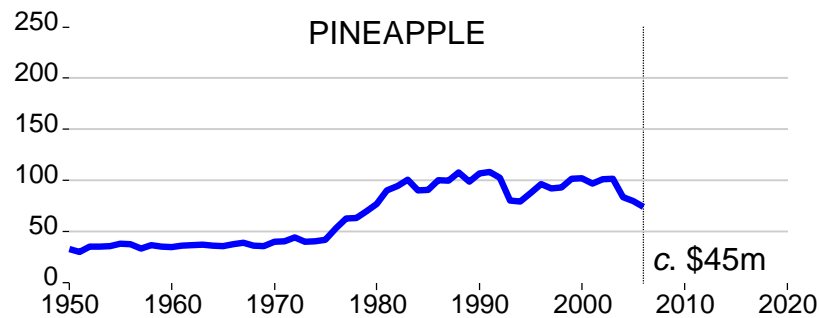
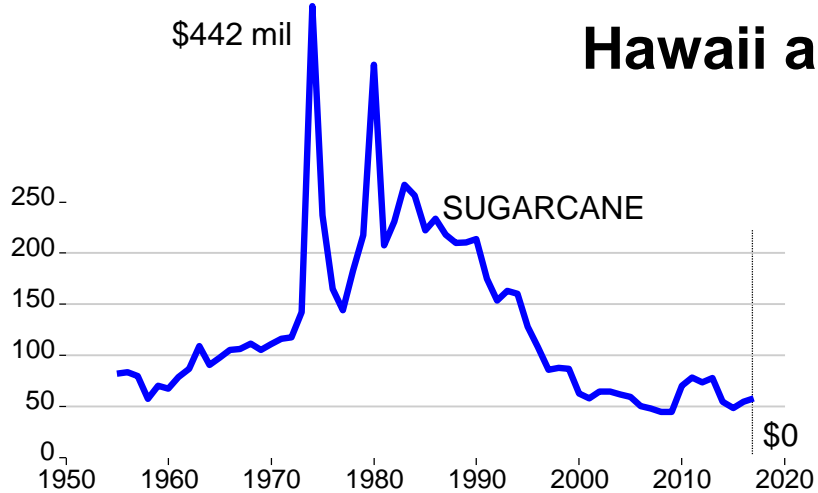
# Paths of annual Hawaii (nominal) agricultural receipts during the statehood era, as are documentable

Million current dollars

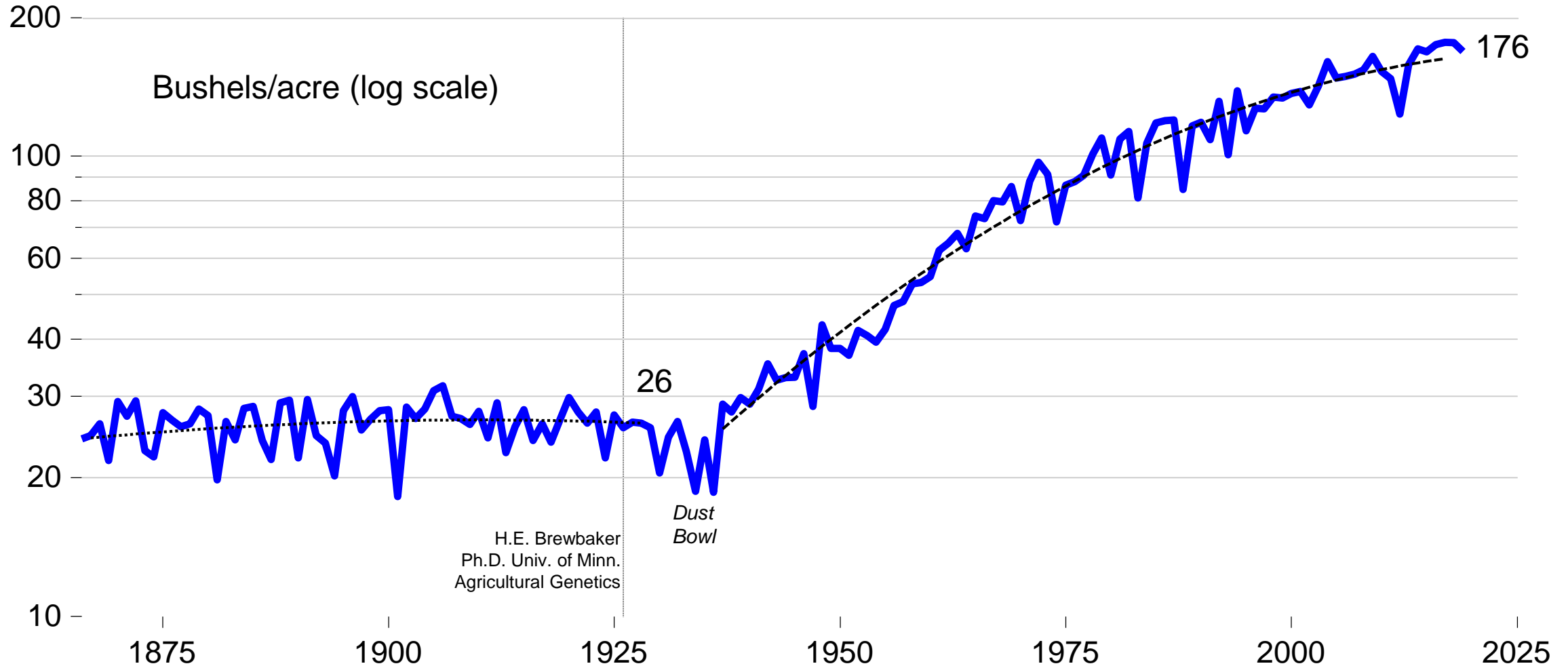


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# Hawaii agricultural receipts (or outlays) in million current dollars



# U.S. maize (corn) productivity classic example of why agriculture is so “small”—7 times more productive; food so cheap people are obese



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## Summary: mitigate health risk, maximize economic opportunity

- Pandemics depress the economy, public health interventions do not
- Mitigate, contain SARS-CoV-2 transmission and you safely restore economic activity
- Neighbor Islands may be there already; Oahu could be in a week or two
- DON'T SCREW IT UP AGAIN YOU BUCKS-FOR-LOLO (no tourists to blame, brah)
- Food away from home, food at home used to be 10% each of consumer expenditure
- Shift away from dining out is rational risk-averse behavior: *make it safe again*
- Agriculture/distribution/food services interindustry linkages are important value-adds



*Pau*







# Appendix: screenshots added during Q&A discussion

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Current  $R_t$

**0.89**

Cases

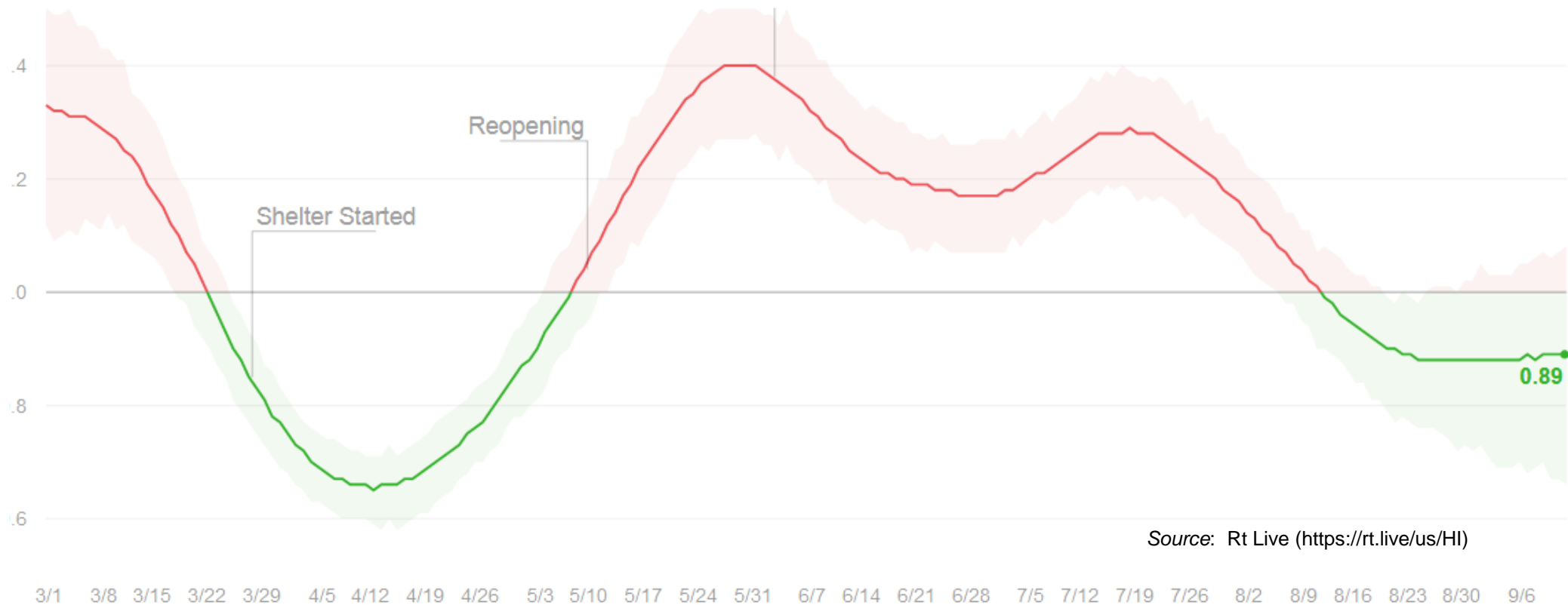
**9,408**

Tests

**239,271**

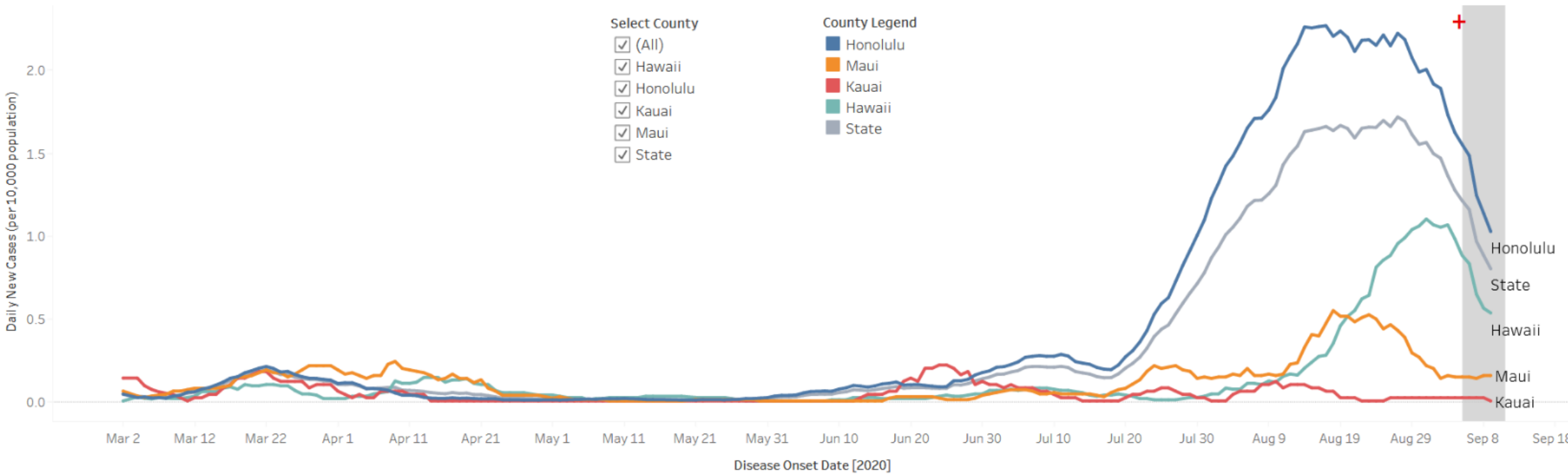
## Effective Reproduction Rate · $R_t$

$R_t$  is the average number of people who become infected by an infectious person. If it's above 1.0, COVID-19 will spread quickly. If it's below 1.0, infections will slow. [Learn More](#).



# Daily New COVID-19 Cases\* (per 10k population), Hawaii 2020

Updated September 11, 2020



+ Tests performed in the previous 3-5 days may not yet have been reported  
\*7-day moving average

Source: State of Hawaii Department of Health  
([https://experience.arcgis.com/experience/eb56a98b71324152a918e72d3ccdfc20/page/page\\_8/](https://experience.arcgis.com/experience/eb56a98b71324152a918e72d3ccdfc20/page/page_8/))