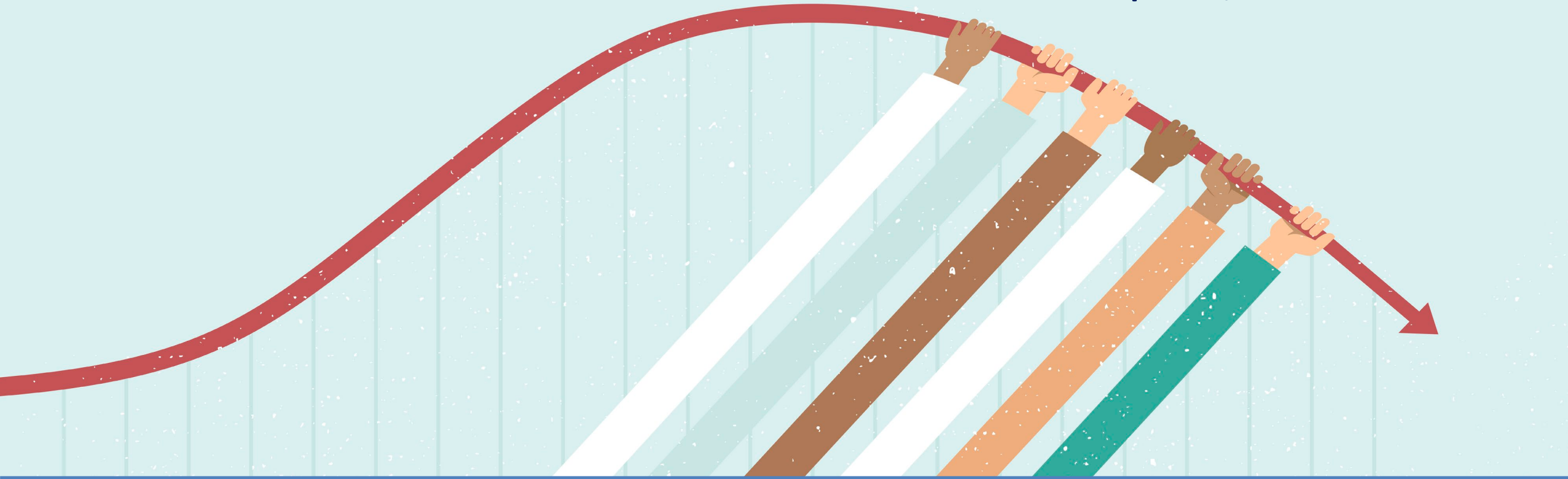


Bending the Curve: Policies to Mitigate COVID-19 in D.C. & the Region

A Briefing by Talus Analytics for the
Office of the D.C. Auditor

April 22, 2021





The Office of the District of Columbia Auditor's (ODCA) mission is to support the Council of the District of Columbia by making sound recommendations that improve the economy, efficiency, and accountability of the District government.



Talus Analytics is a research and development company that specializes in translating complex data into actionable information for global decision makers, specifically in context of risk. By blending scientific, economic, and policy analysis into interactive decision-making tools, partners can make real time decisions with profound impacts.

Project goals and key questions

- Understand the impact of social distancing and enabling and relief policies in the context of caseload and deaths nationally.
- What policies have worked when, where, for whom, and where have they effected change?
- How do the policies of DC compare to what has worked well, or not, both compared to Maryland and Virginia, and nationally?
- Provide targeted policy recommendations as the current pandemic continues and for the future.

Background and context

- Building on work underway since October 2020 and final report links U.S.-wide analysis of what worked nationally with policy environment in D.C.
- Policy data drawn from COVIDAMP.org, a joint effort with the Georgetown University Center for Global Health Science and Security.
- Use data from DC., SafeGraph, NY Times, DC Department of Employment Services, the CDC Social Vulnerability Index, and the academic literature.
- Analysis focused on informing and providing recommendations about policy implementation related to the COVID-19 pandemic across the District of Columbia, Maryland, and Virginia.

Overview of key results (1 of 2)

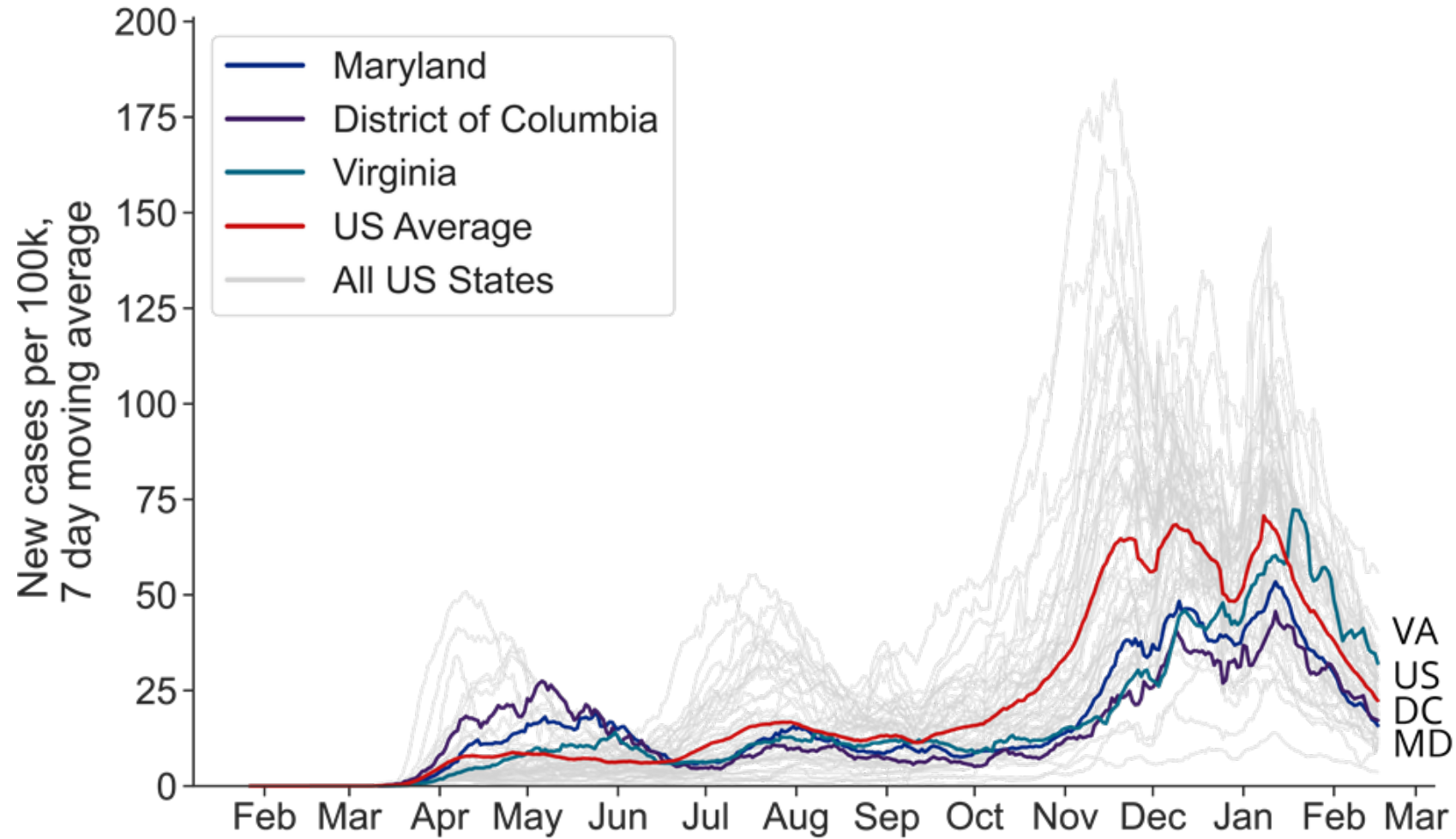
- States had different approaches to policy-making but addressing both 'social distancing' and 'enabling and relief' was key to success.
- States most impacted by fall surges had the fewest policies in place and least comprehensive policy environments.
- D.C. acted early and comprehensively, with policies designed to control spread and provide social support.
 - D.C. had among the best outcomes in the US, especially in the fall.
 - However, no place in the U.S. fared as well as countries where more stringent policies were used to control transmission (e.g., Australia, New Zealand, and Canada).

Overview of key results (2 of 2)

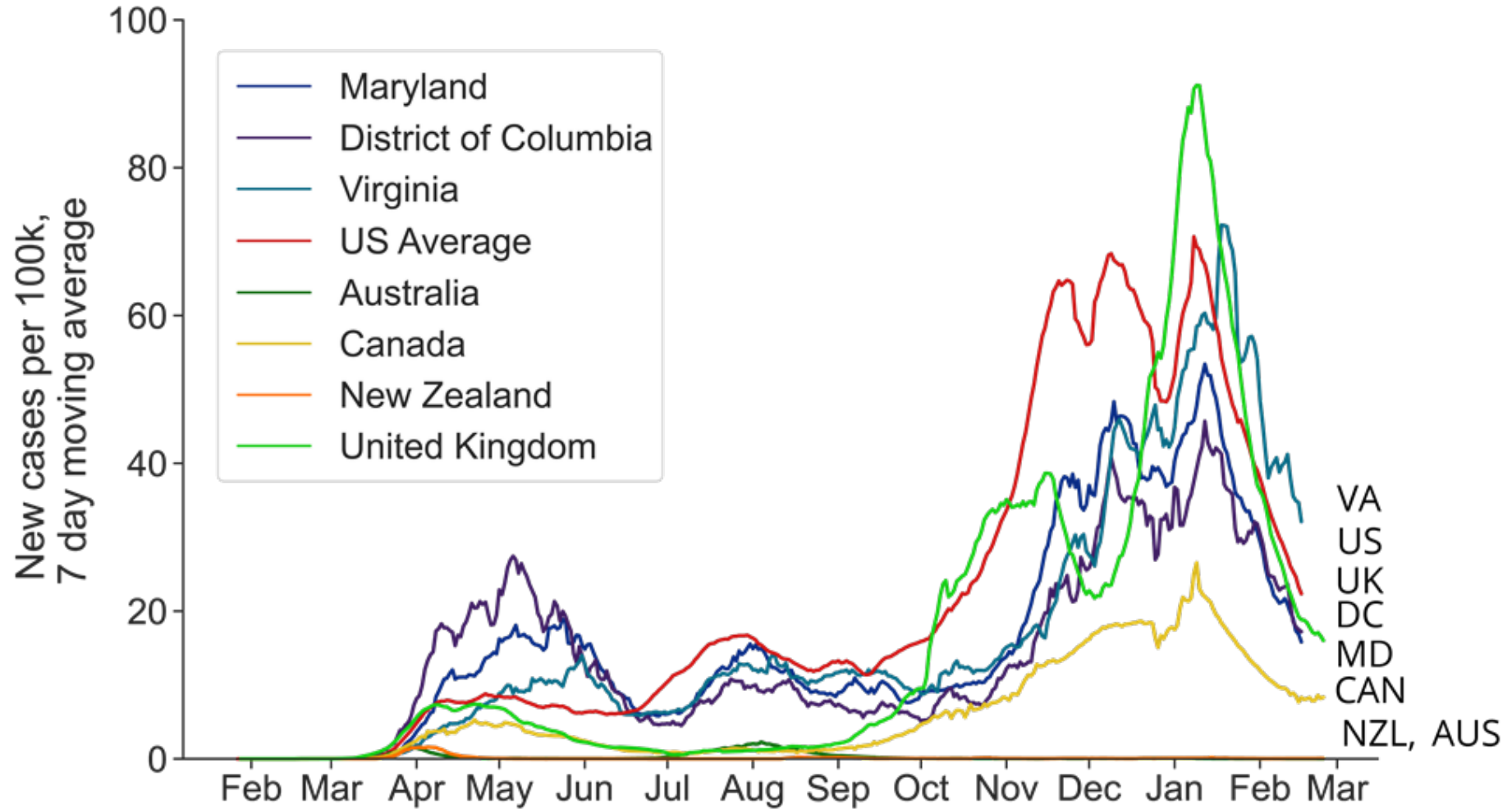
- Among social distancing policies, mandating face masks was most consistently linked with better case outcomes.
 - Policies defining mitigation measures for reopening of bars/restaurants and concert venues/nightclubs also linked.
- Policy-making provides a mechanism to support vulnerable populations
 - States more impacted by fall surges had fewer policies enacting social support, including for frontline and essential workers.
 - Results from prior analysis of COVID impacts in DC, new national policy analysis presented here, and national trends in the research literature all underscore importance of supporting those most vulnerable.

What can we learn from different
policy environments and
outcomes in the fall surge?

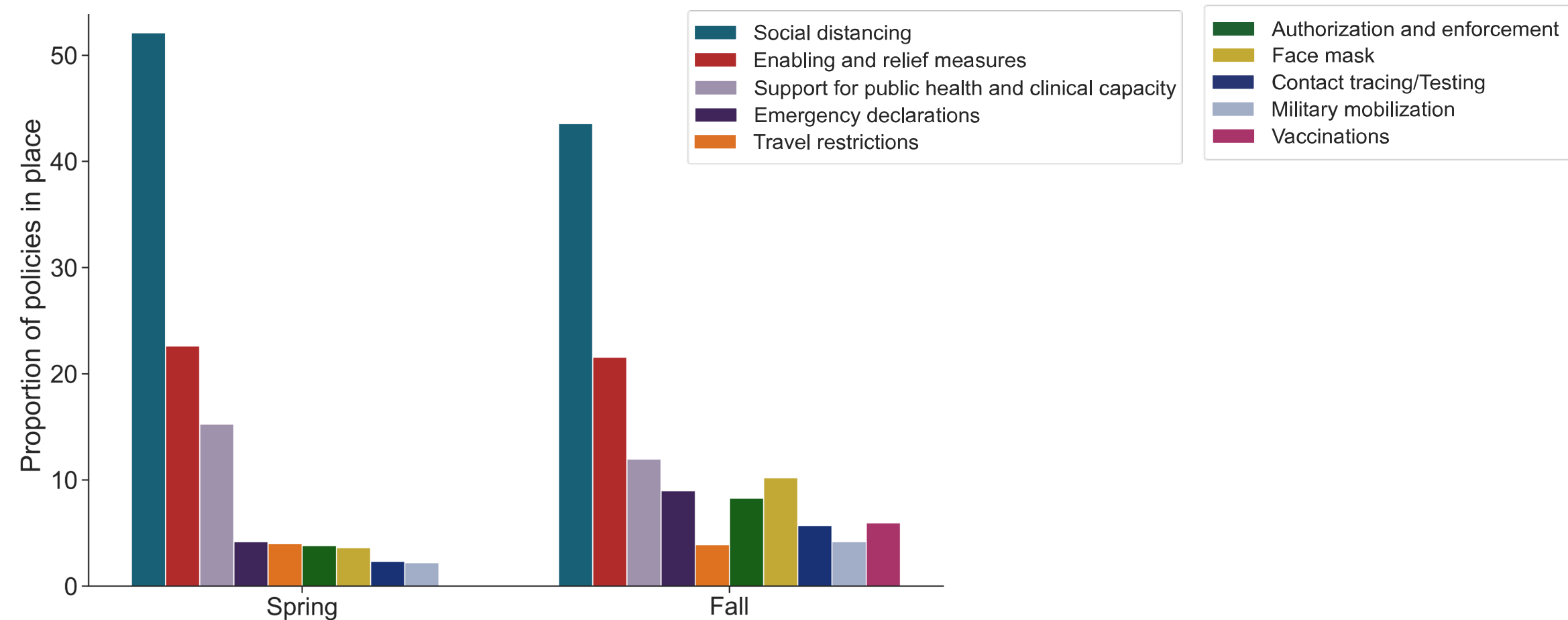
Pandemic timeline: Cases in the U.S.



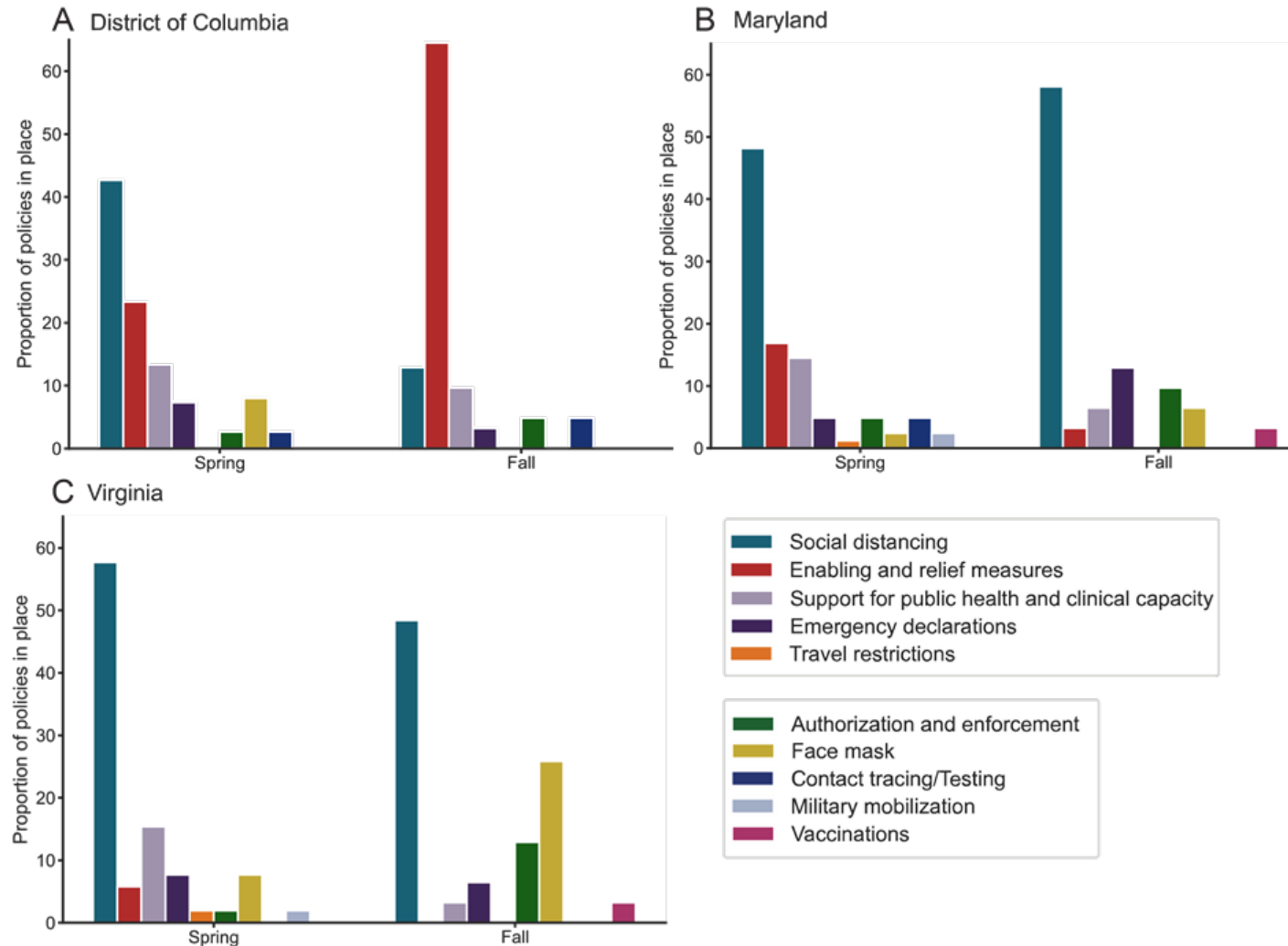
Pandemic timeline: Cases in the U.S. compared to abroad



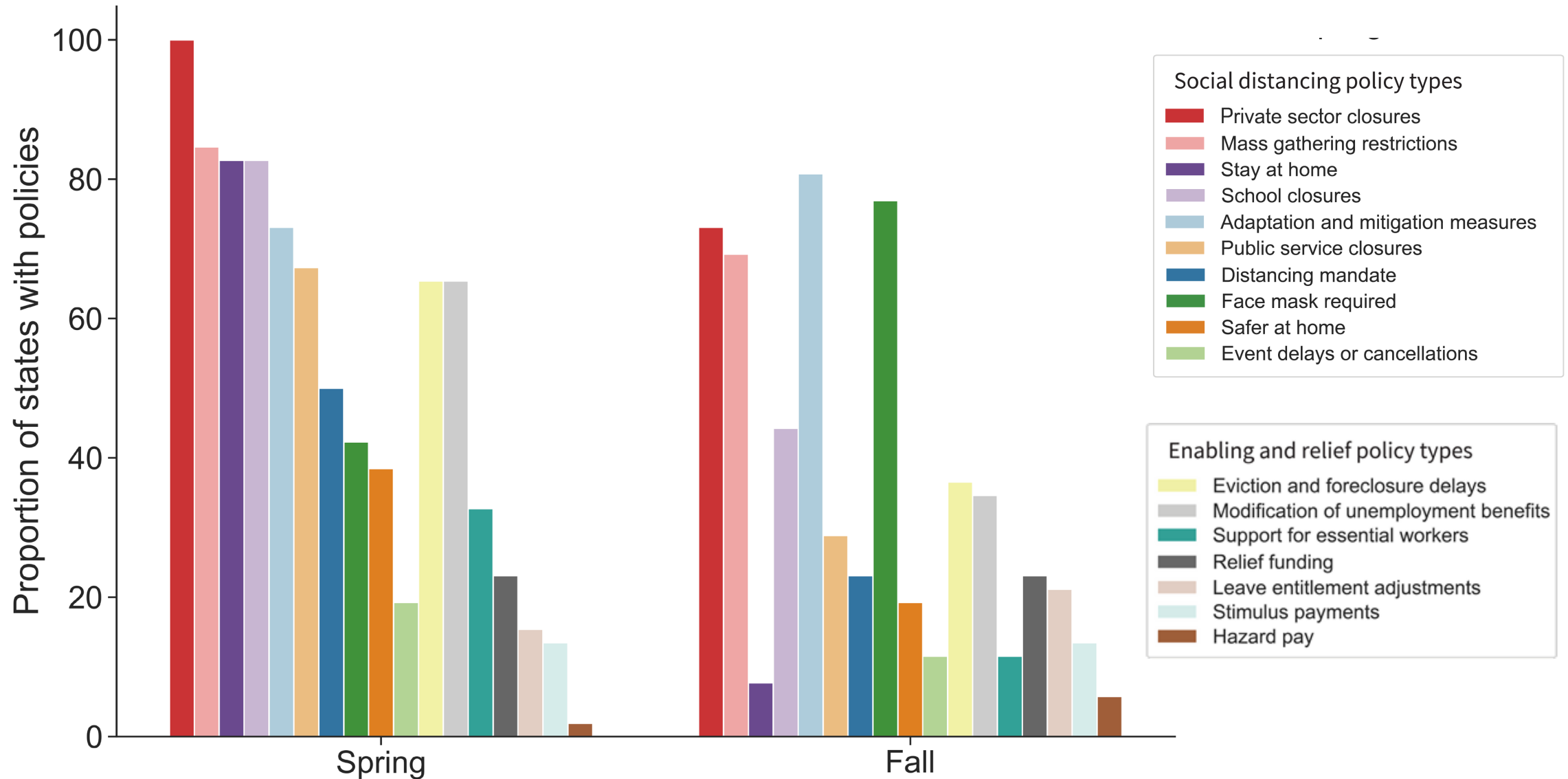
Policies enacted in fall 2020 included more contribution across policy types (beyond social distancing)



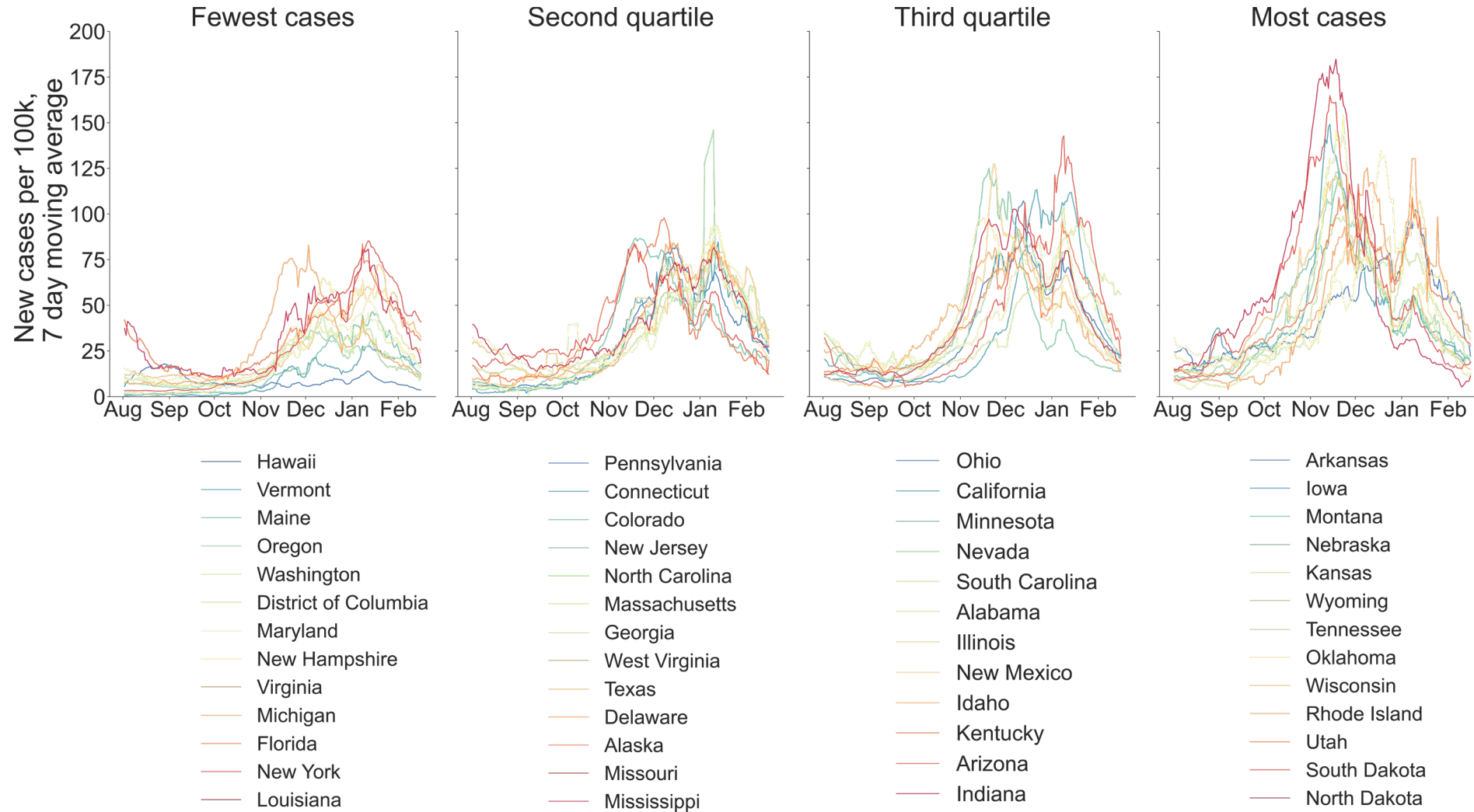
DC, Maryland, and Virginia aligned with these patterns, with the exception of enabling and relief measures in the District



Fall 2020 marked by different approaches to “reopening”



Approach: Group states by fall caseload and compare policy environments

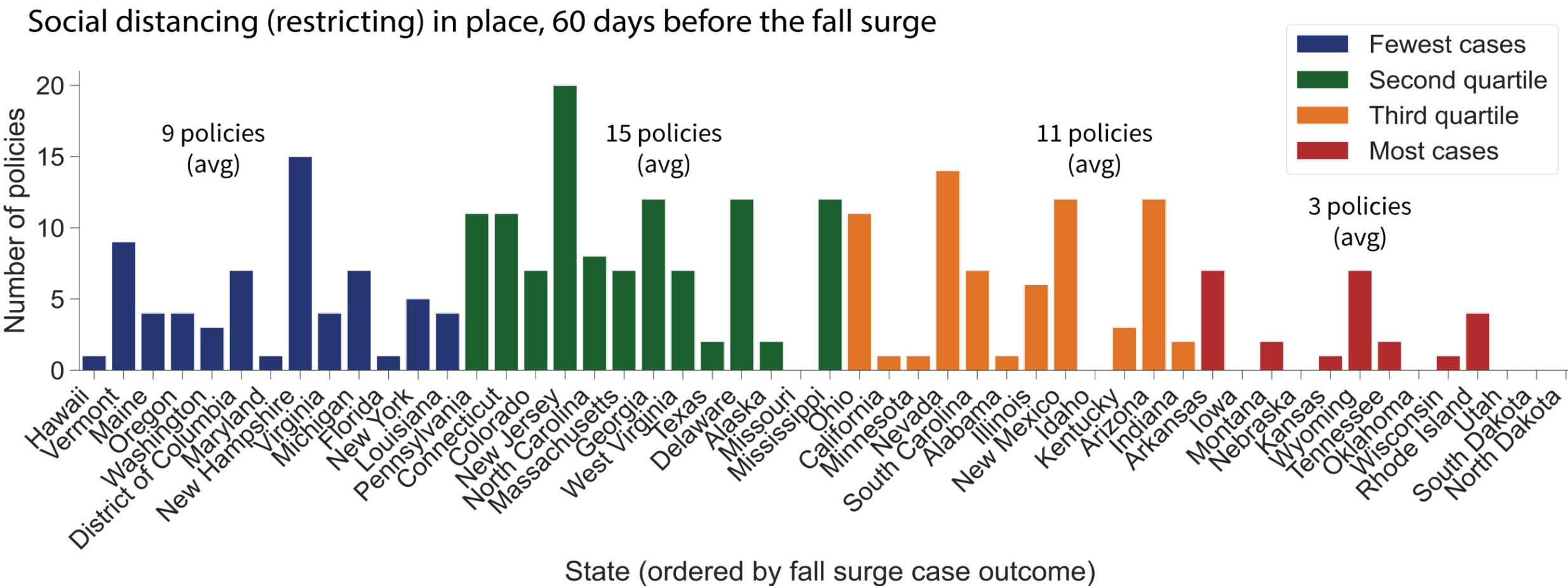


States with more cases in the fall tended to have fewer types of policies and for less time

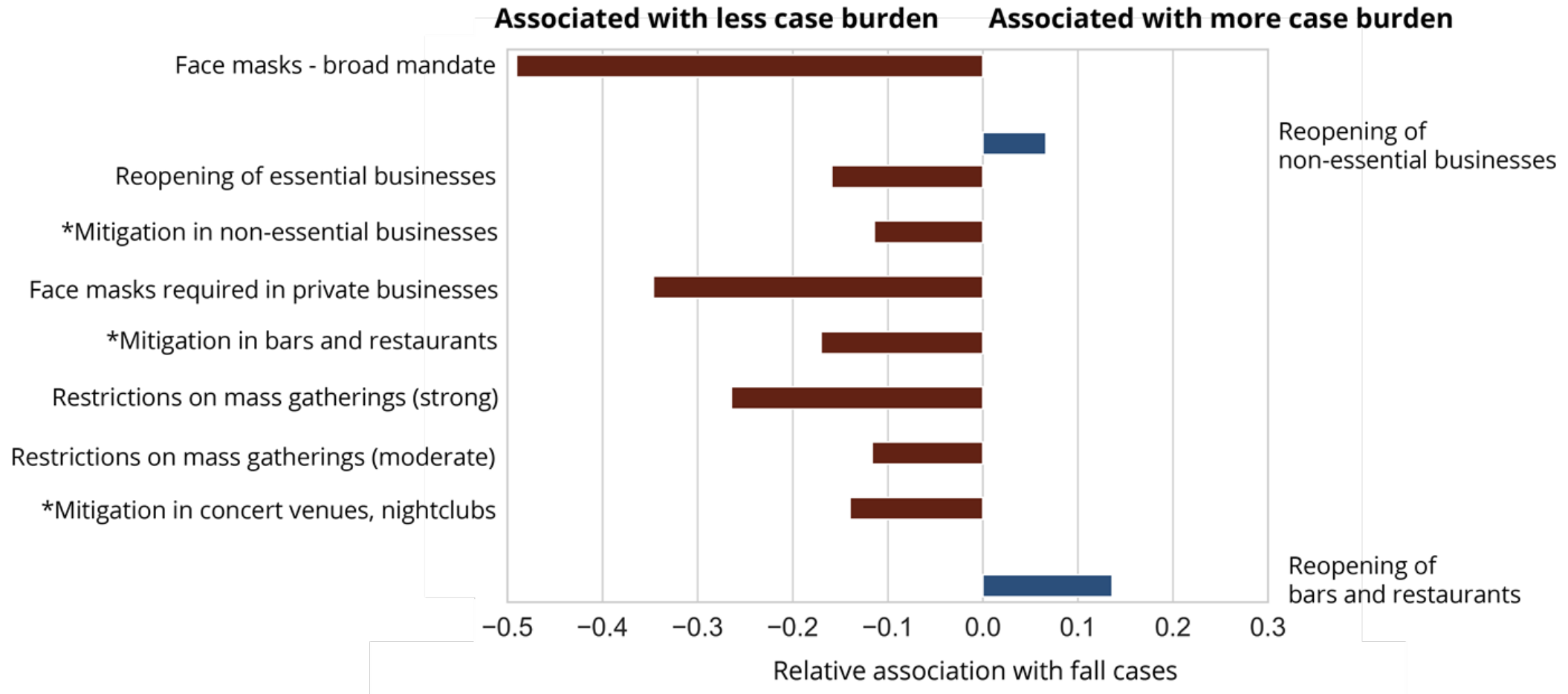


What social distancing measures
had greatest impact on outcomes?

States with more cases in the fall had fewer social distancing policies, overall

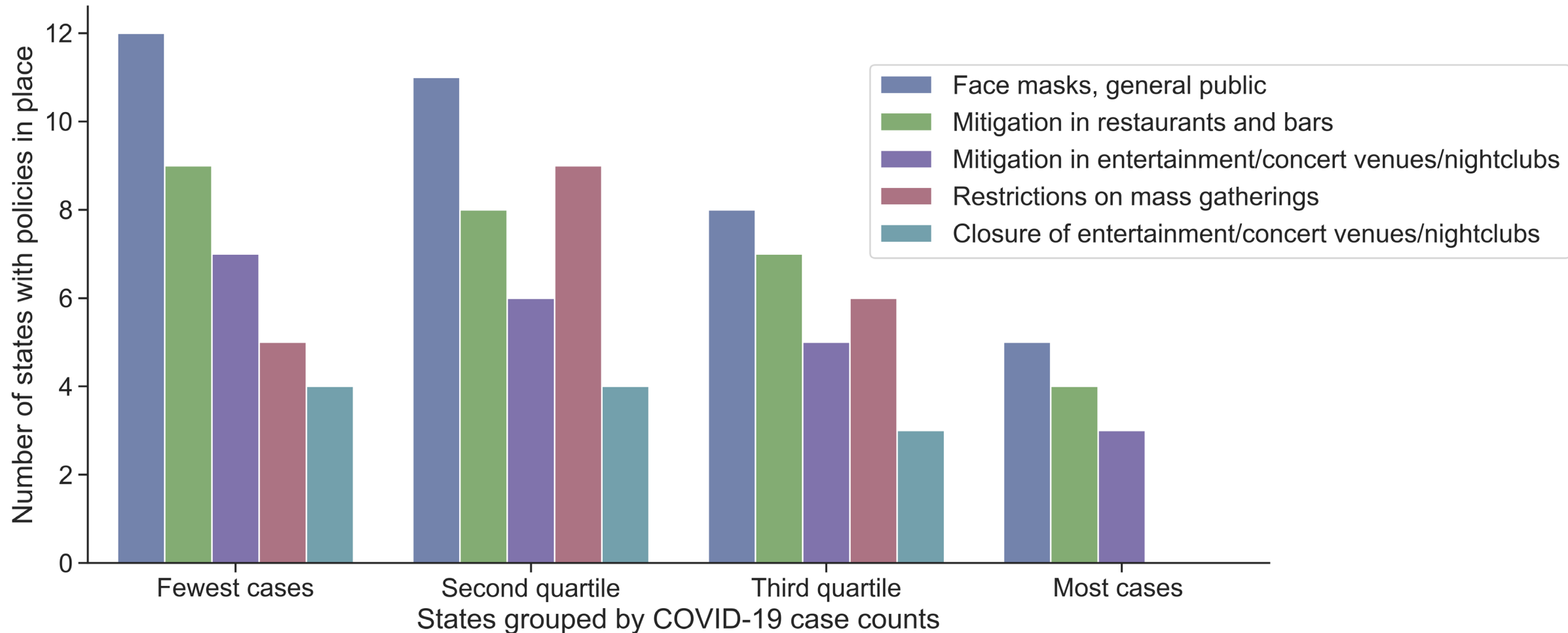


Mitigation measures and face mask mandates associated with better case burden outcomes

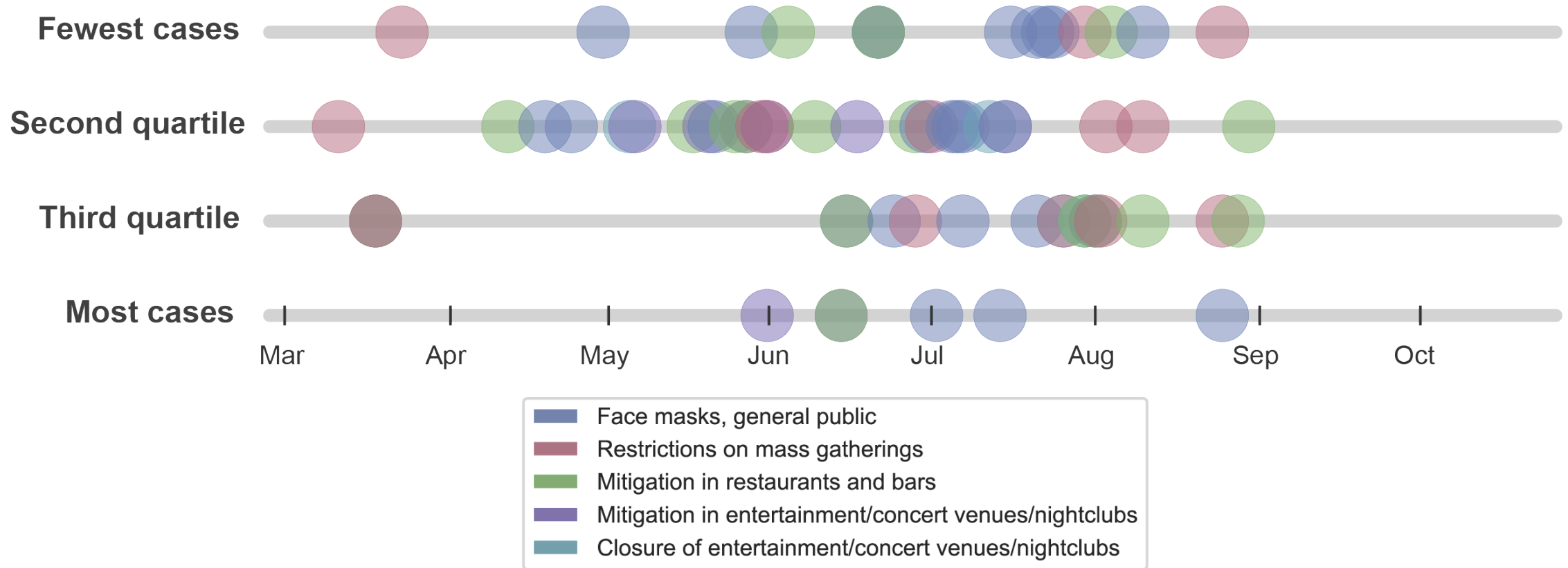


*Mitigation measures refer to requirements for risk-reduction that a business must implement to re-open, such as capacity limitations, cleaning requirements or reduced hours of operation

Policies focusing on face masks, gatherings, and reducing spread indoors tracked closely with reduced cases in the fall



More successful states also tended to have policies in place well before fall surges



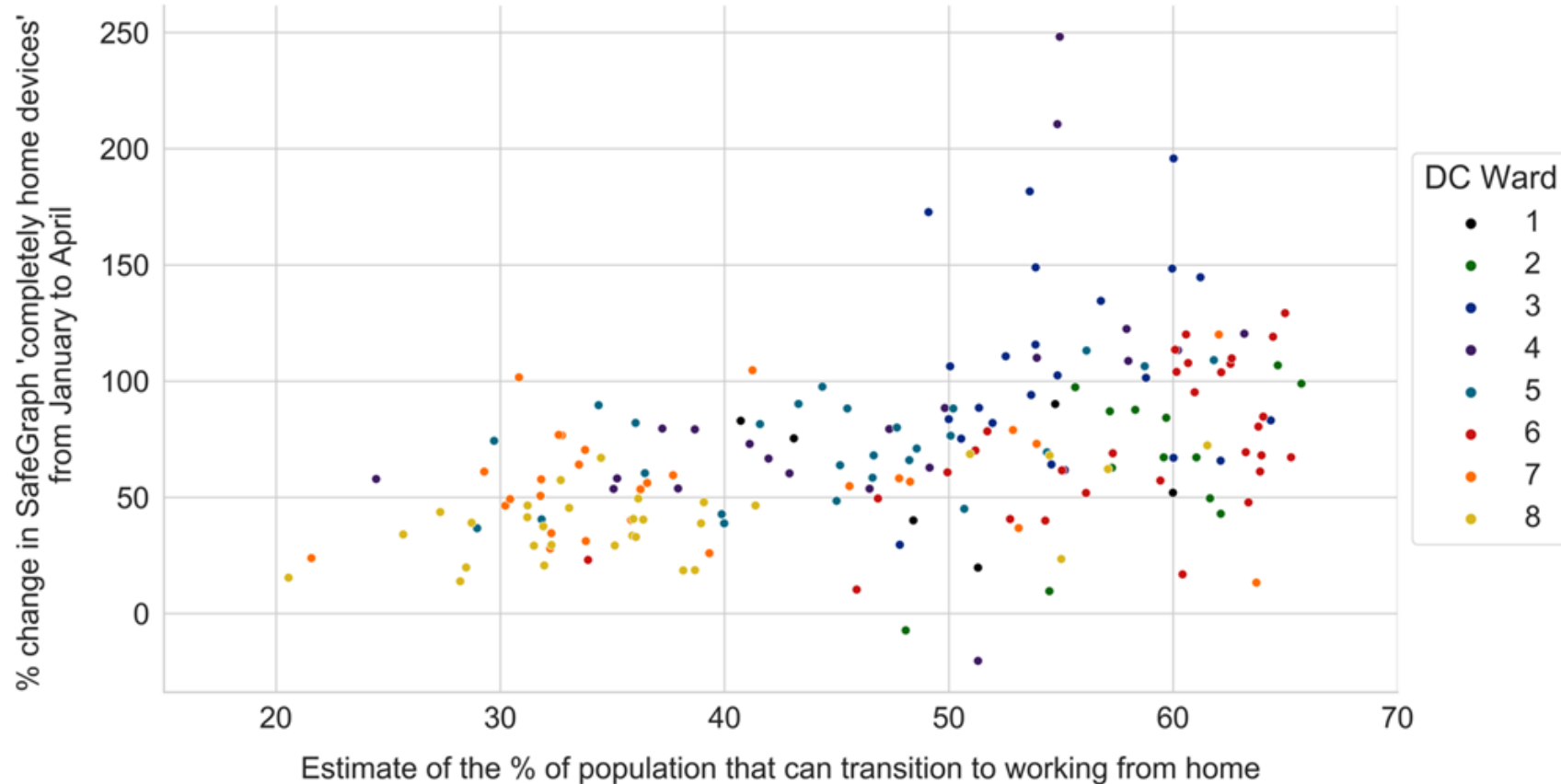
Each dot reflects the date when a state enacted a policy

How did enabling and relief measures differ between states relative to caseload during the fall surge?

Enabling and relief measures support those who cannot always “socially distance”

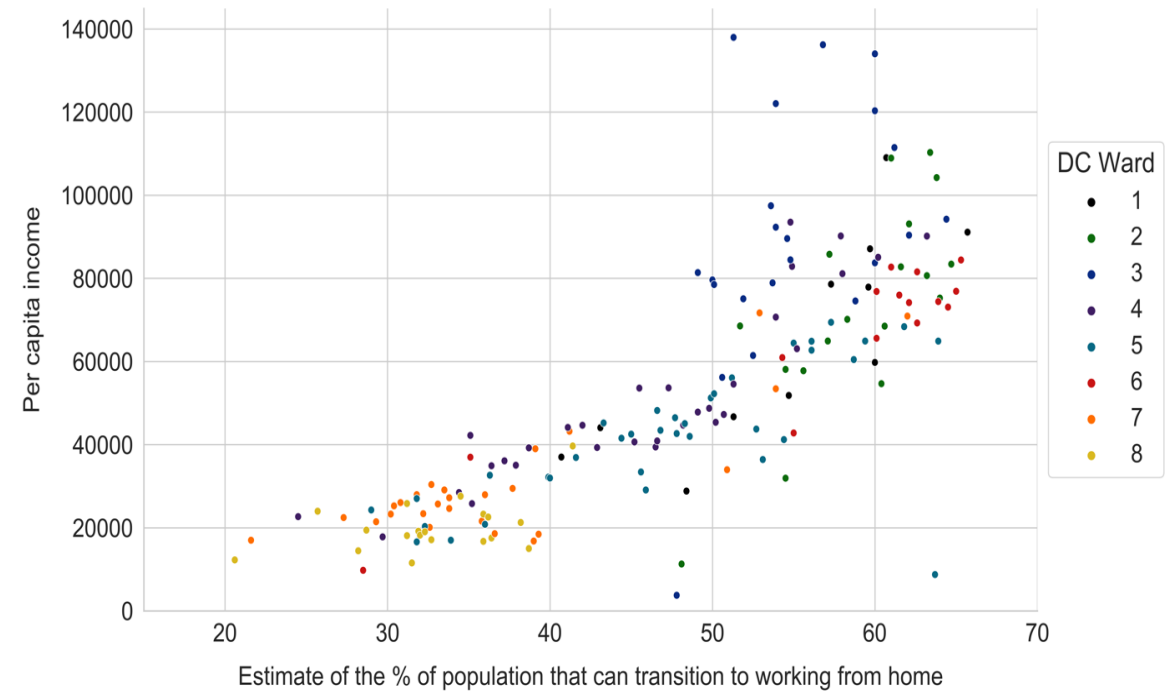
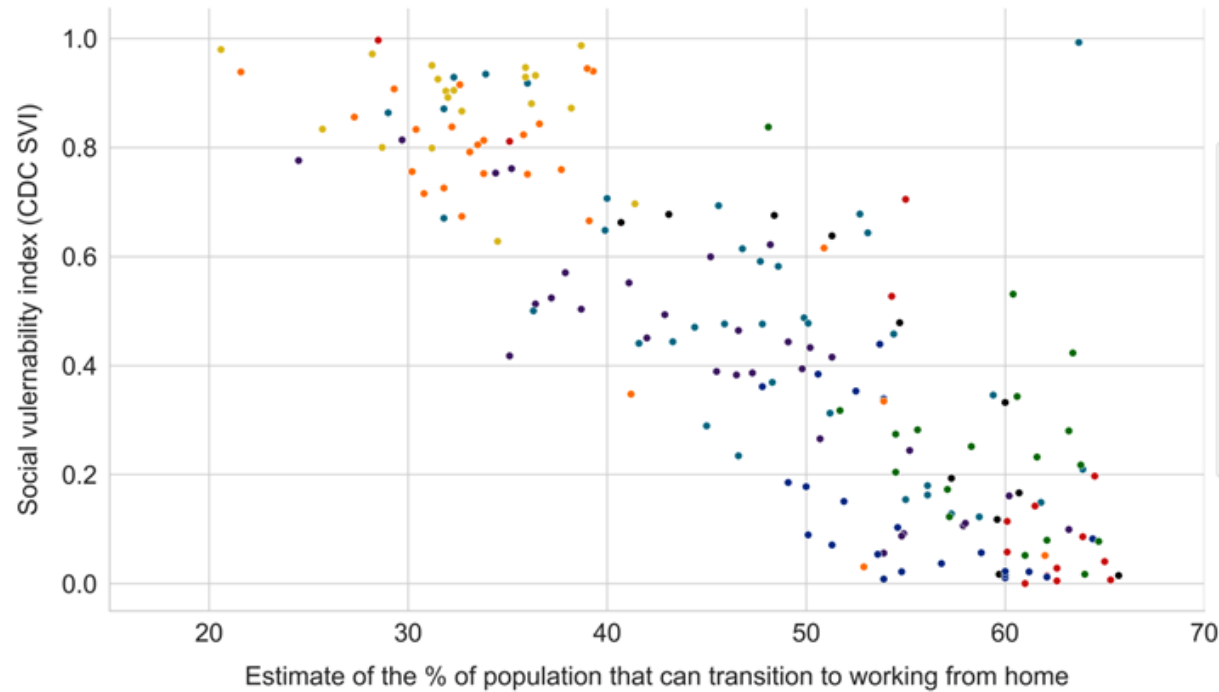
- Prior report found impact of DC social distancing policies on mobility was linked to ability to work from home.
- Within the District, Wards with more essential and frontline workers were more mobile.
 - Concentrated in Wards 7 and 8 and Wards 4 and 5, to a lesser degree.
 - These wards are the same as those impacted most by COVID and with the largest Black and Hispanic populations.
 - At the neighborhood scale, inability to work from home is also aligned with other social and economic risk factors.

Where people could work from home, they were more likely to stay home

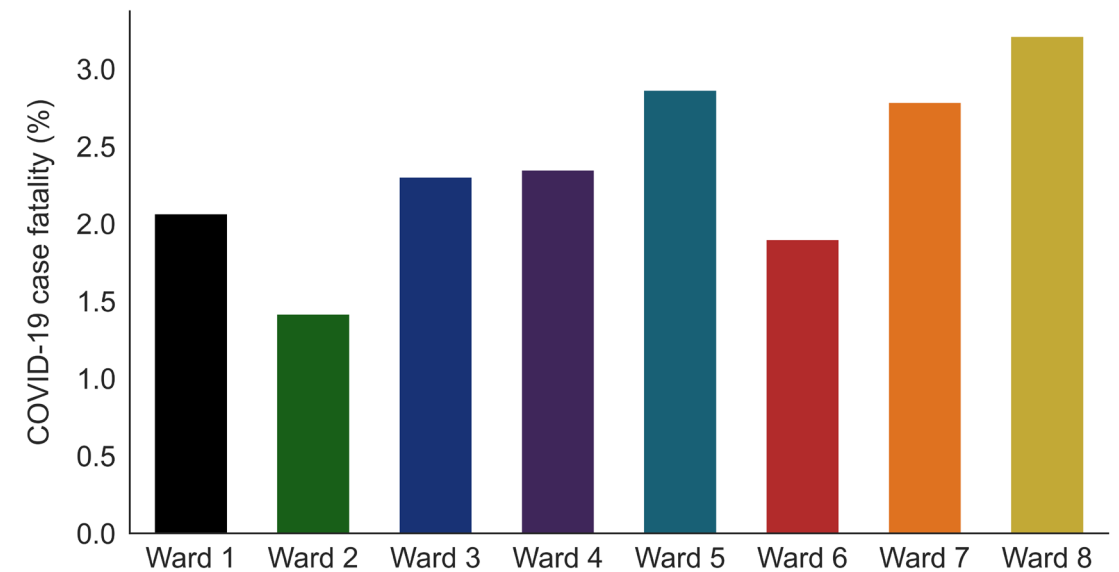
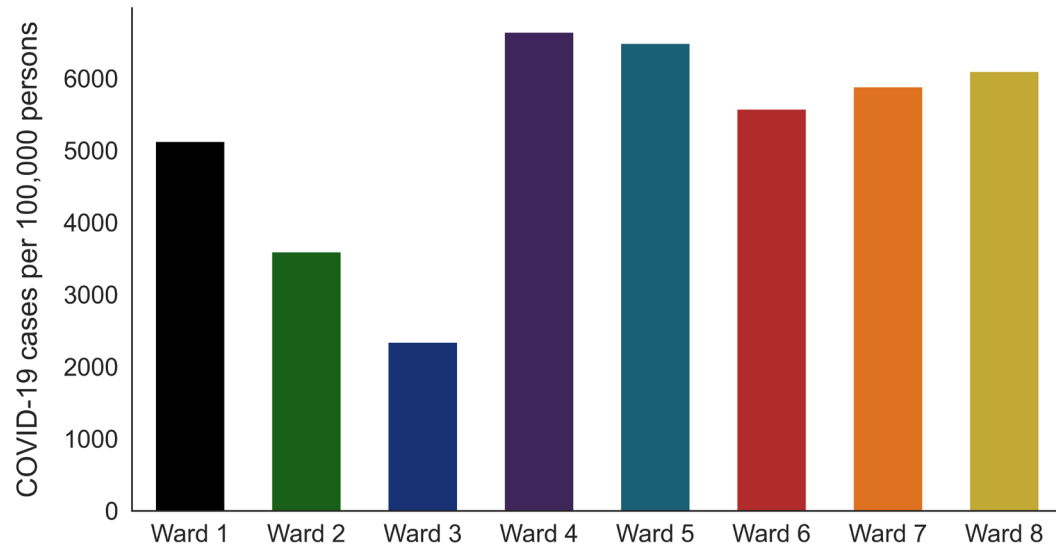


- Using occupations defined by O*NET data, derived an estimate of who works in occupations that can be done from home.
- Those who could work from home strongly correlated with devices that stayed 'fully at home' in the D.C. area.

Higher income is positively correlated with the ability to work from home; socioeconomic vulnerability is negatively correlated

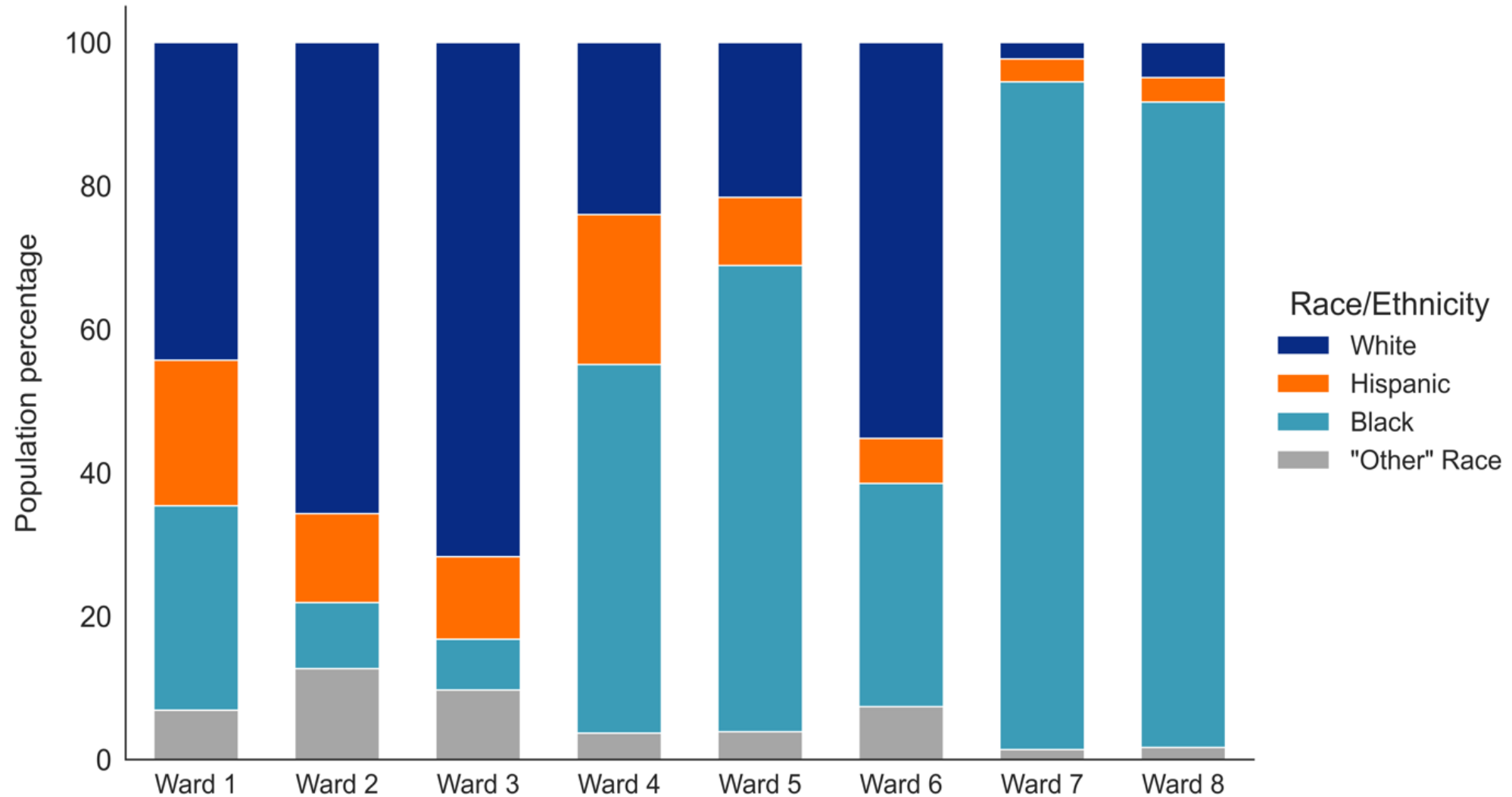


COVID-19 cases highest in Wards 4, 5, 7, 8 and case fatality rate highest in Ward 8

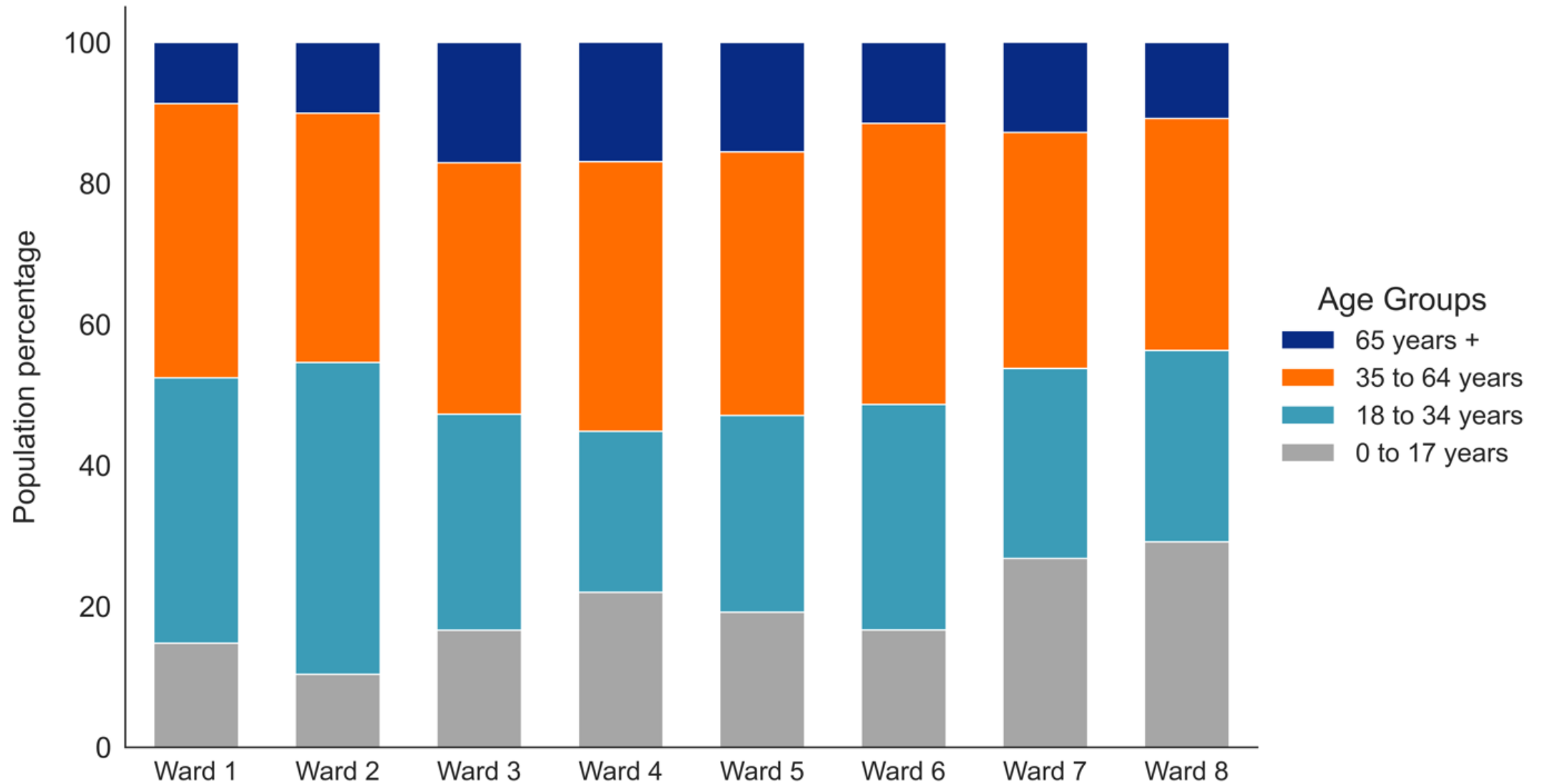


Case and fatality data as of March 16, 2021

COVID-19 cases highest in Wards 4, 5, 7, and 8 –aligns with Wards with highest non-white populations



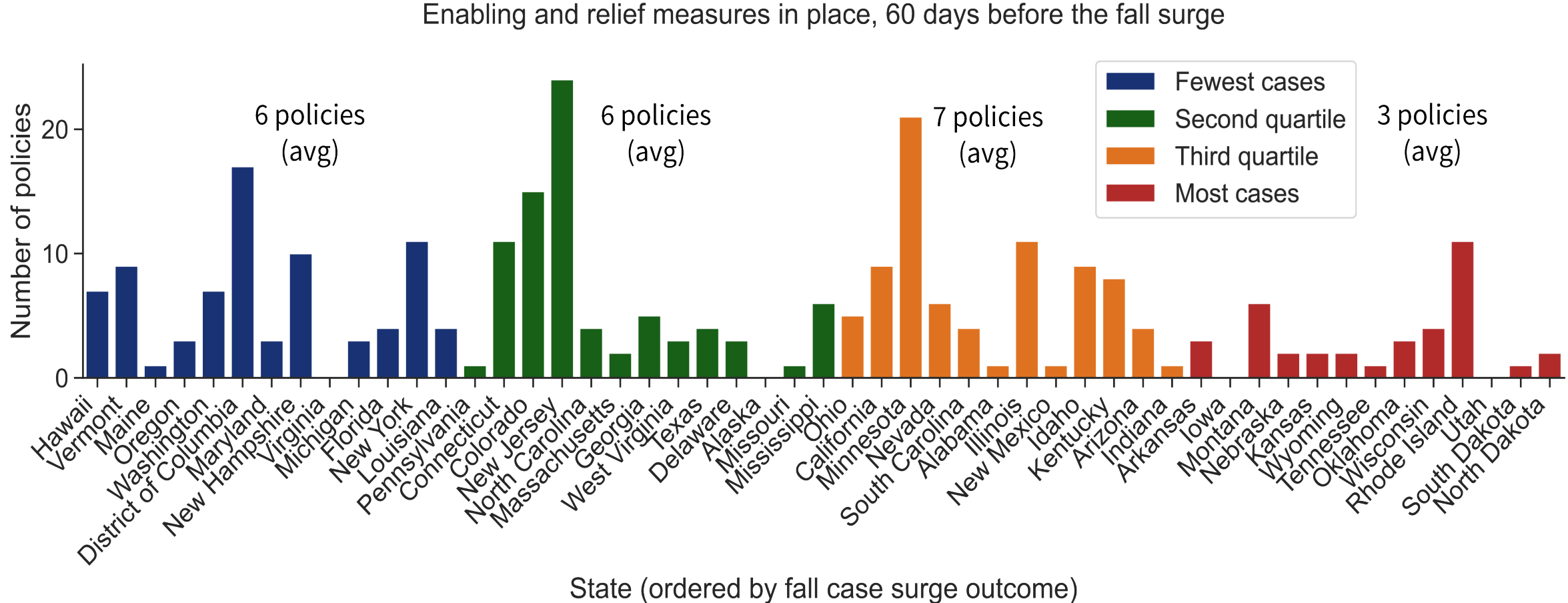
Age demographic of D.C. wards



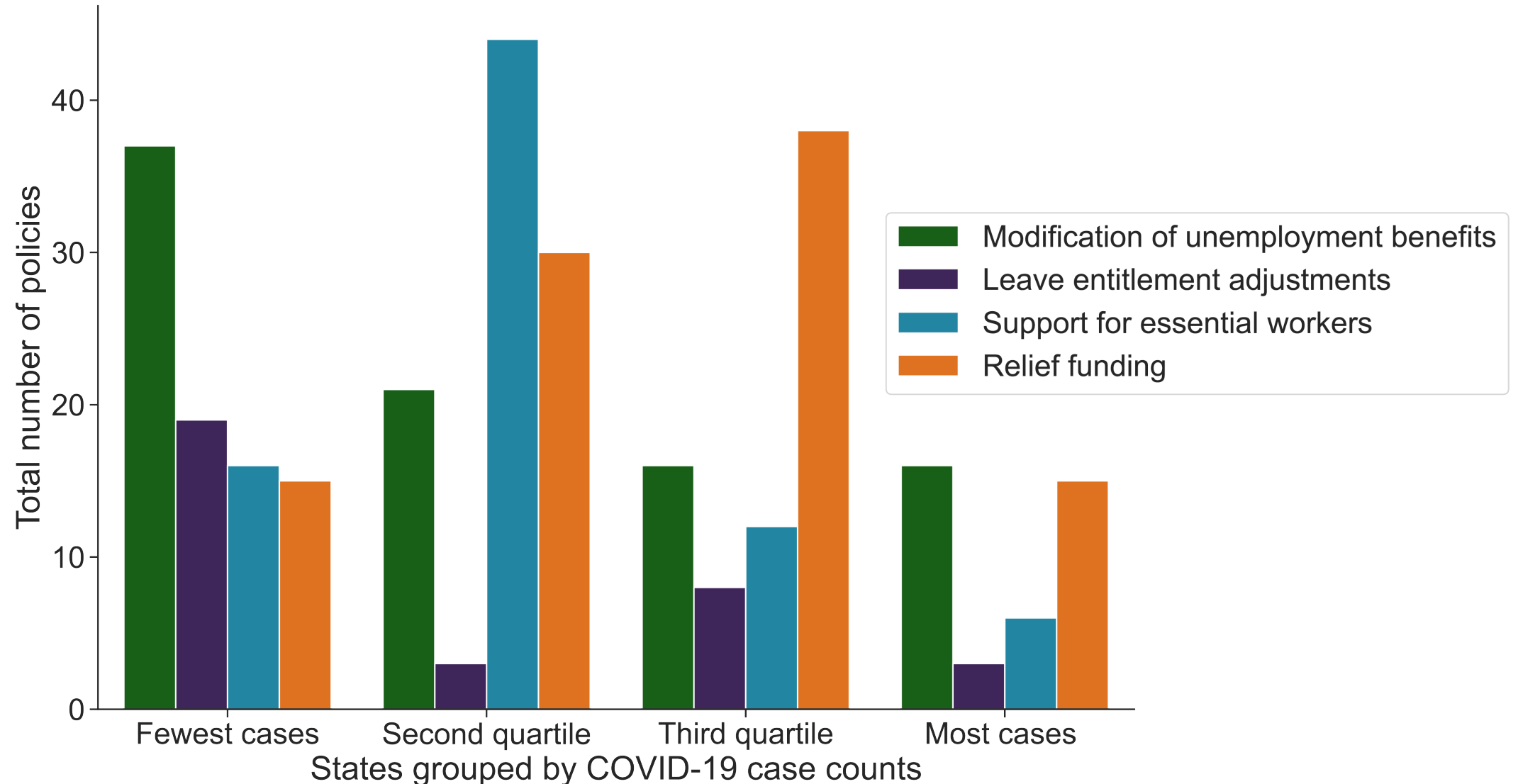
Enabling and relief: What policies were implemented?

- Enabling and relief measures capture policies related to support for essential workers, augmented unemployment benefits, eviction/foreclosure delays, and similar types of relief.
- Prior analysis of COVID-19 impacts in DC underscored importance of policies to protect vulnerable populations, as have other reports released nationally.
- How did enabling and relief measures impact the case outcomes in the fall?
 - Captured policies in place at any point during the 60 days leading up to the start of each state's fall surge.
 - Compared across states grouped by fall case outcomes, as before for social distancing policy analysis.

Significantly fewer enabling and relief policies were implemented in states with highest fall caseload

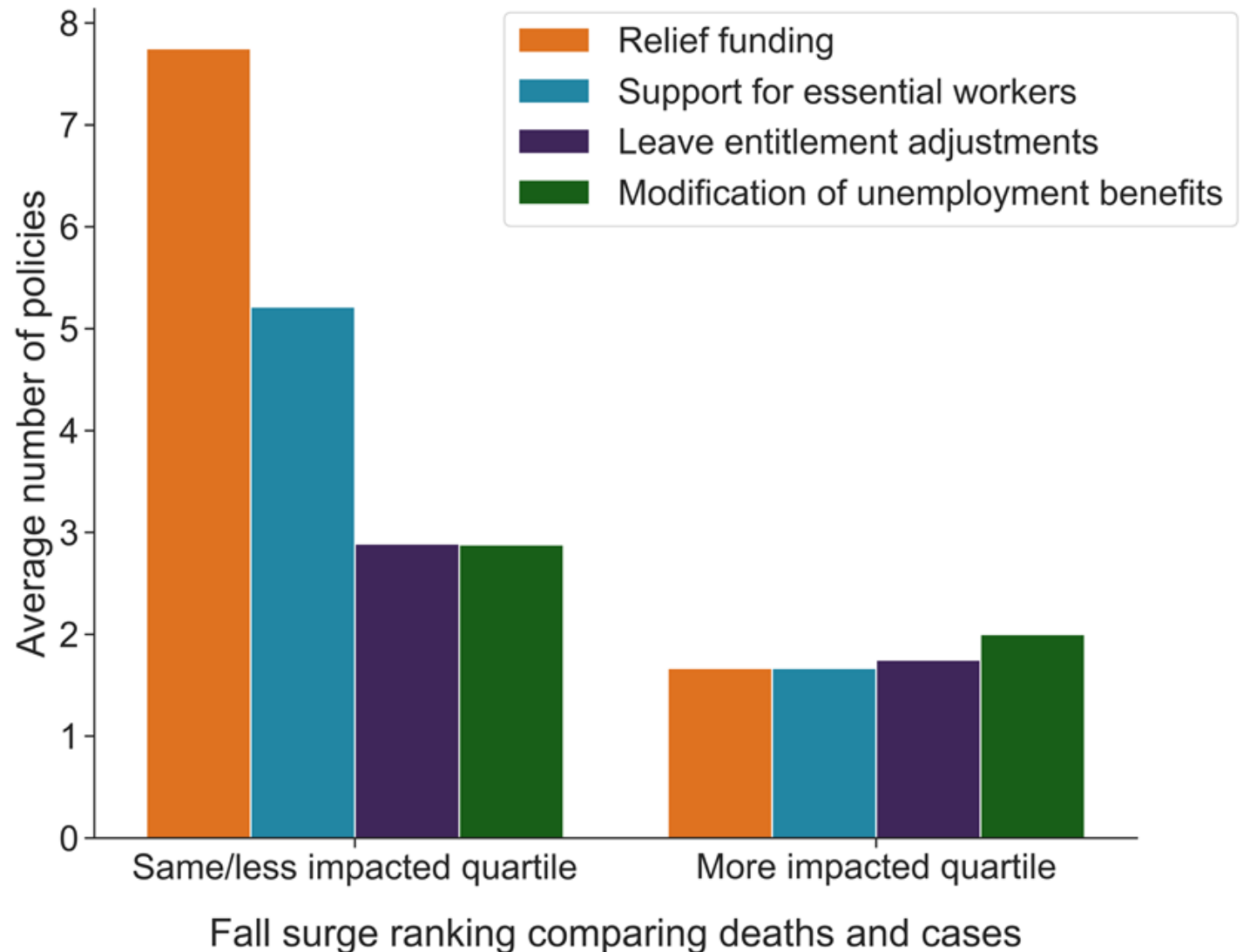


Support for essential workers, leave entitlements, and hazard pay linked to lower fall caseload

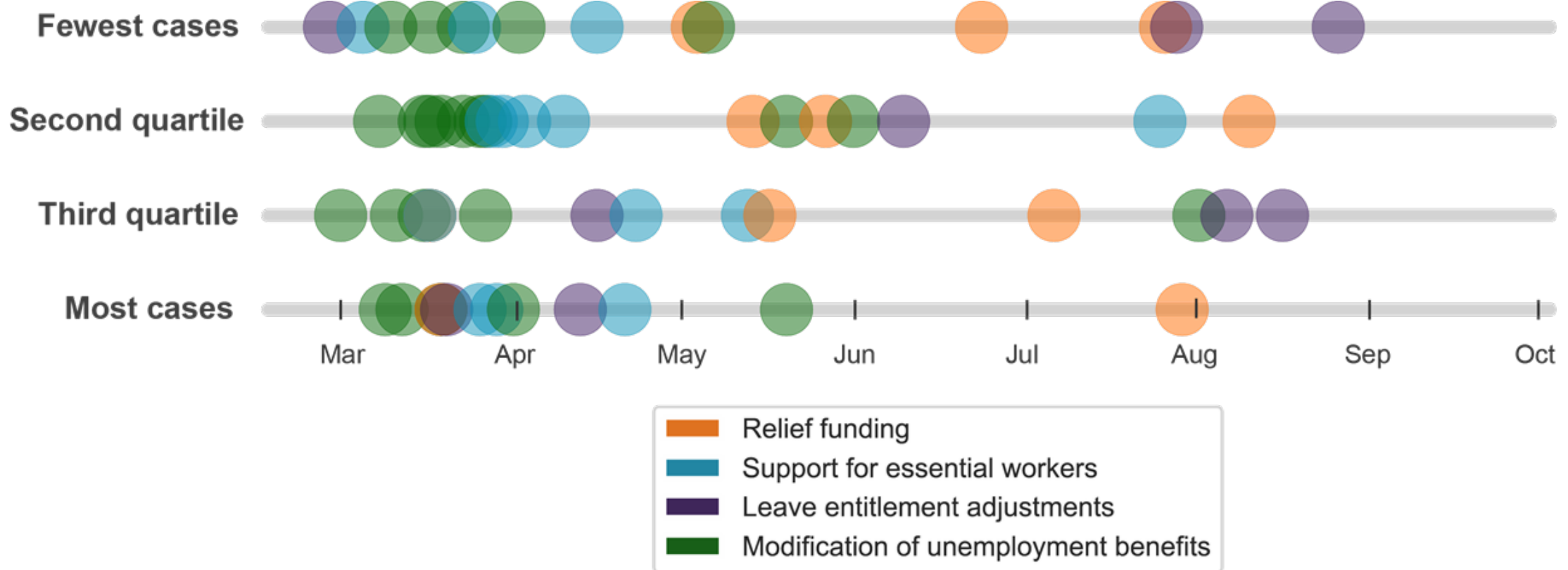


Support for essential workers and relief funding linked to states that avoided worse death outcomes in the fall

Compares
difference in state
rank based on
impacts due to
cases or fatalities



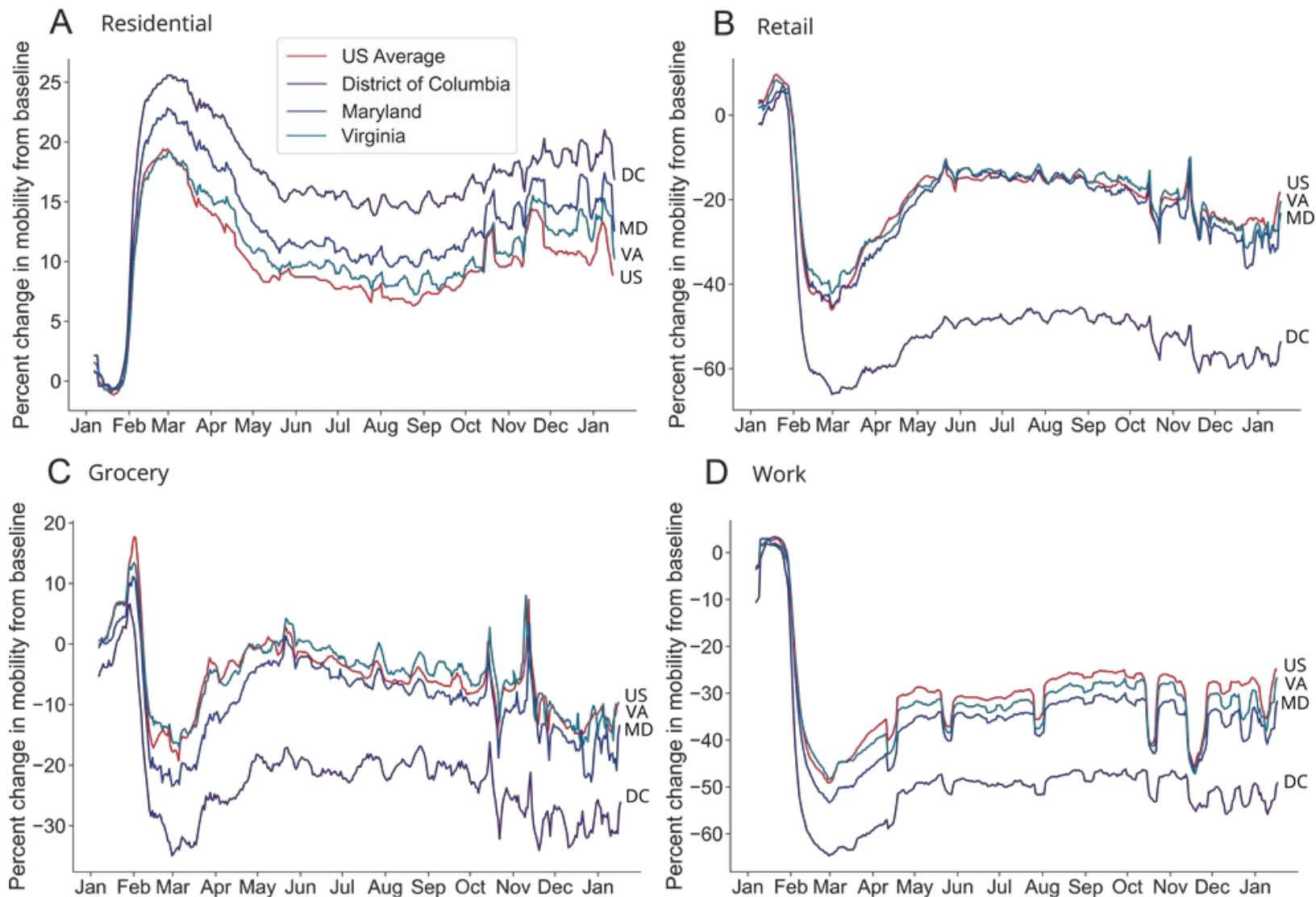
States with best outcomes continued to enact enabling and relief policies ahead of the fall surge



Each dot reflects the date when a state enacted a policy

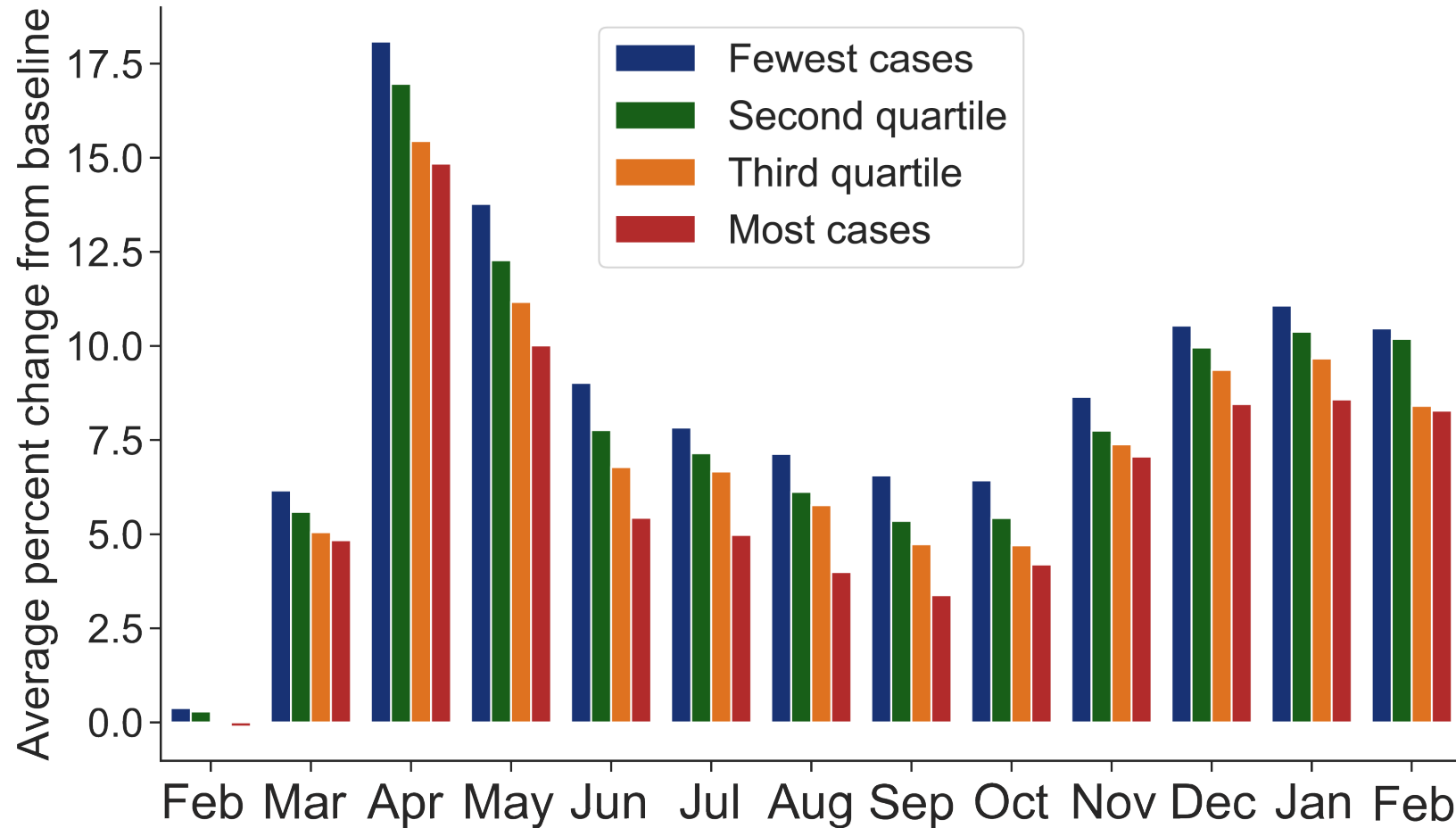
Mobility data provides evidence
policies worked to change
behavior

Mobility data shows that people significantly reduced mobility across the U.S., but particularly in D.C.



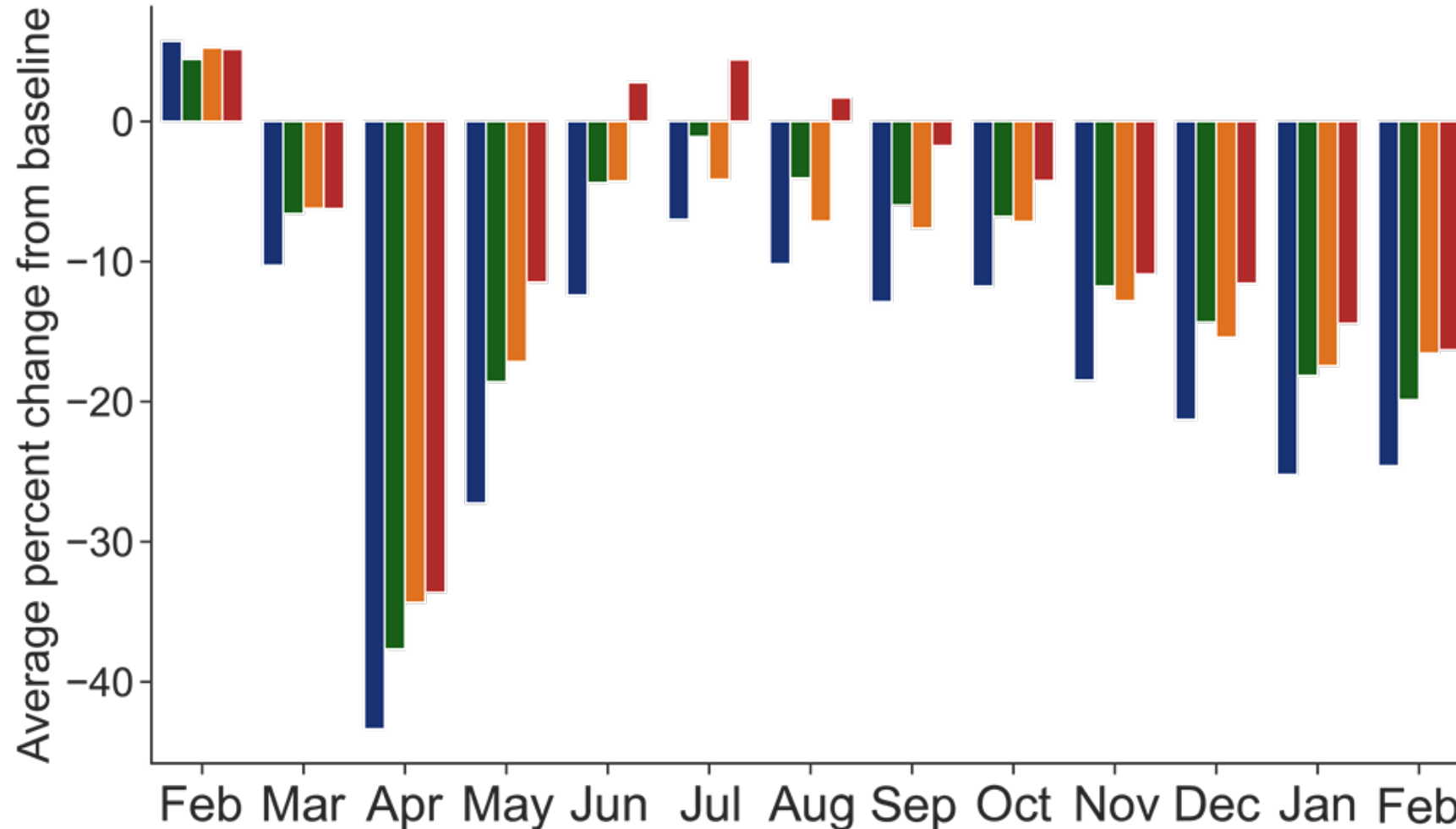
Mobility patterns mirror the grouping of states based on fall caseload

Home – mobility increase from baseline



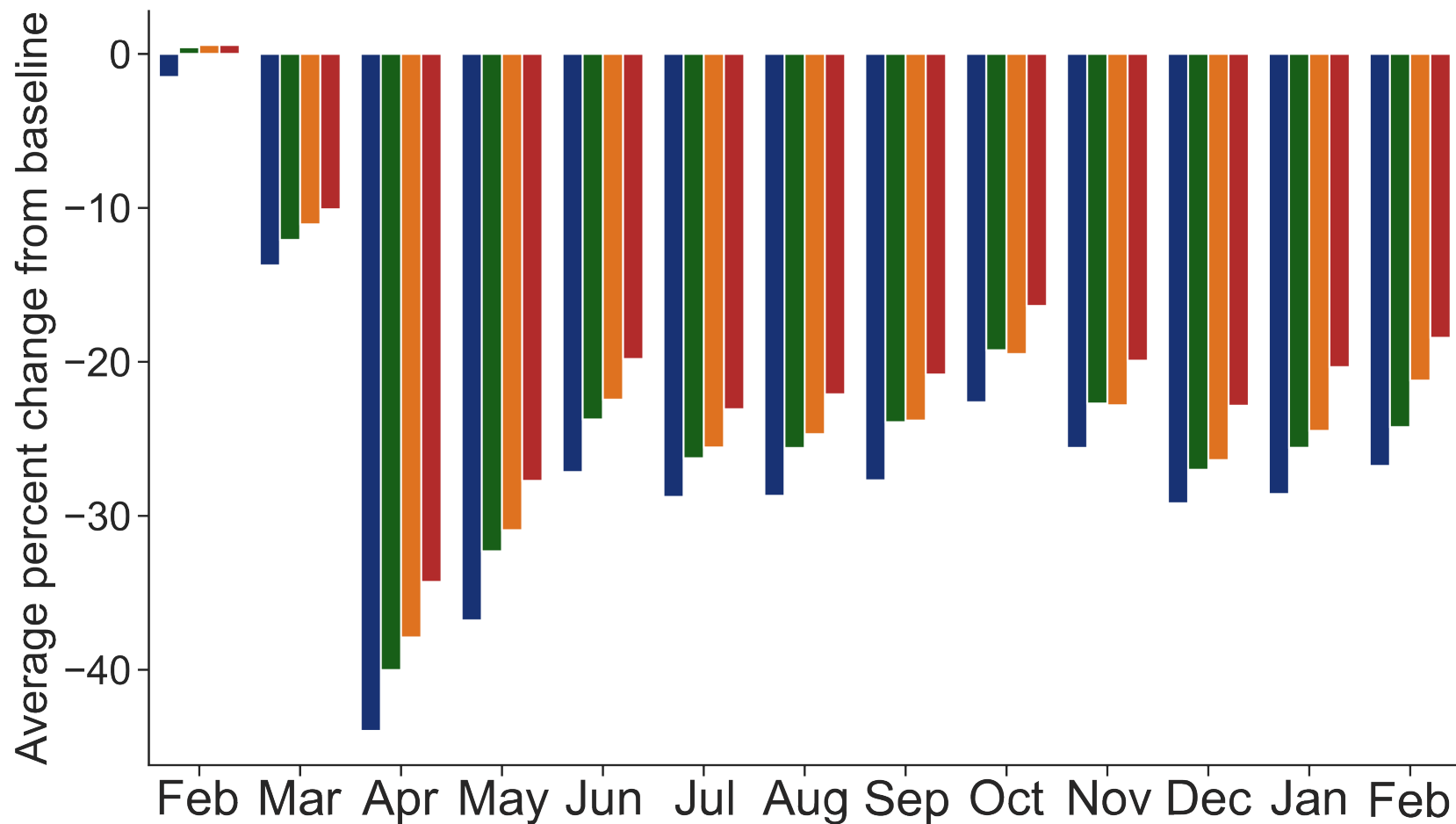
States with higher caseload in the fall reached baseline retail mobility before fall surge

Retail – mobility increase from baseline



Work behavior patterns plateaued early in pandemic

Workplaces – mobility increase from baseline

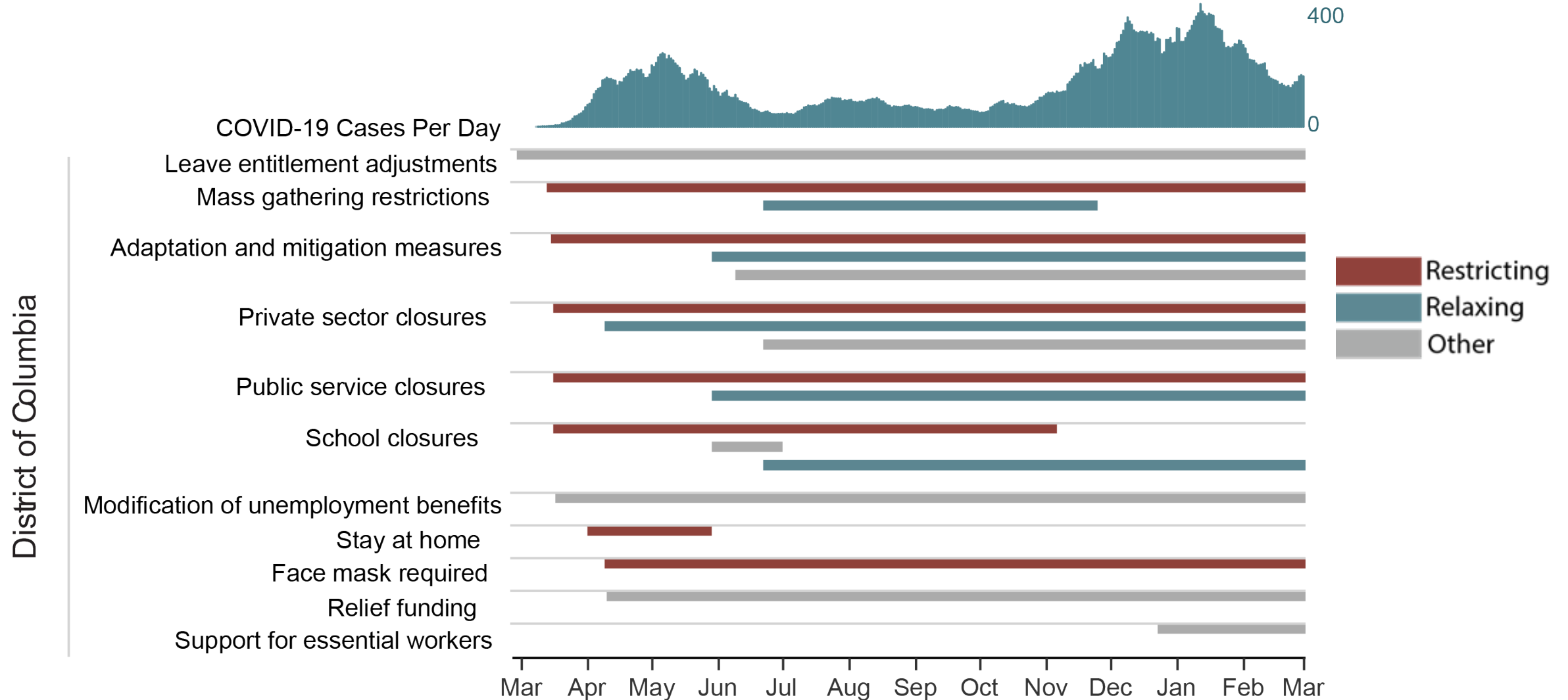


What we learn from changes in mobility

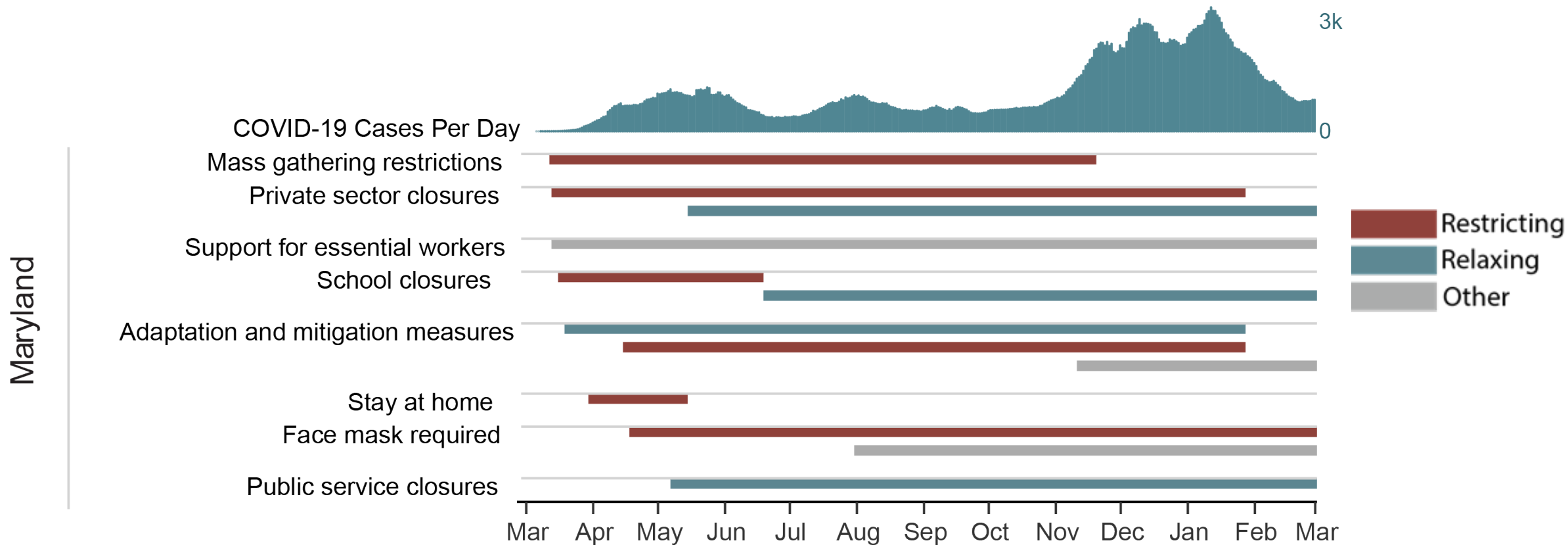
- Together, these mobility patterns align with the policy environments - strict stay at home orders in the spring, a gradual reopening in the summer, and a mixed response to the fall surge.
- Mobility trends mirror the grouping of states by fall case outcomes, most impacted states stayed home least.
- These results also align with the emerging literature studying mobility during the pandemic.

Success in enacting a
comprehensive policy
environment in D.C., Maryland
and Virginia

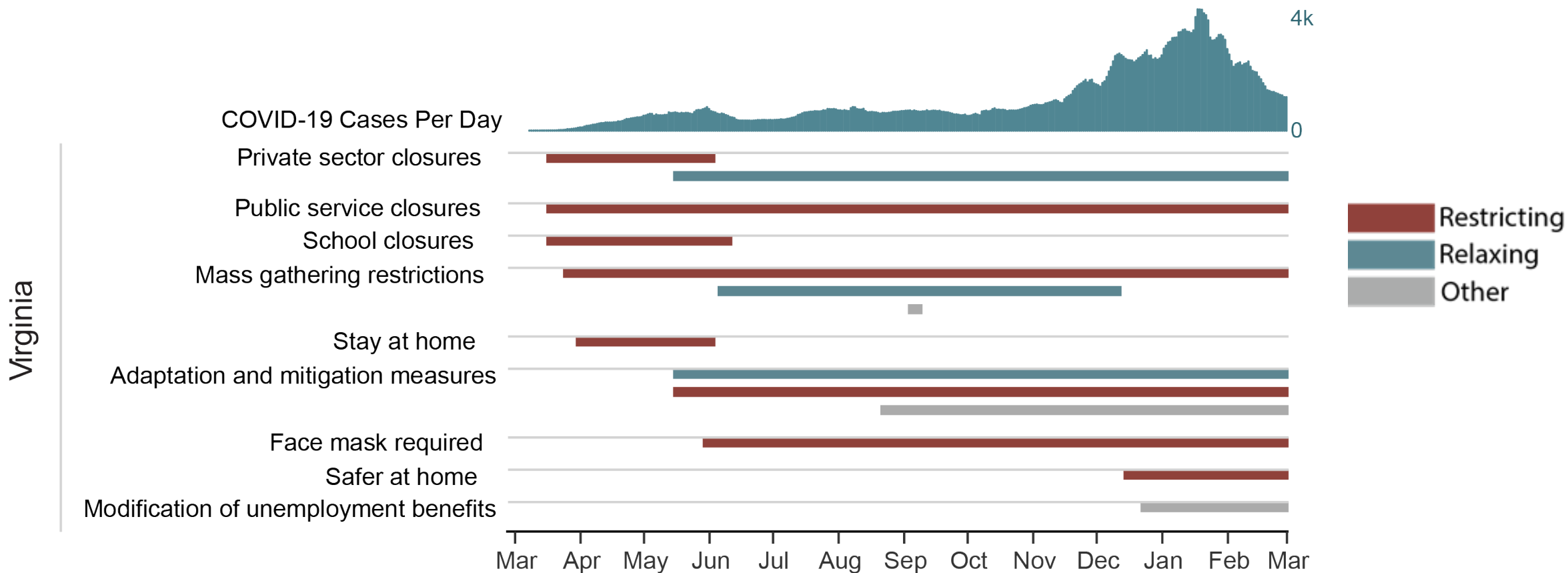
D.C. succeeded in “layering” social distancing and economic support



Maryland also had a similar layered policy approach



Virginia differed from MD and D.C. mostly on reopening earlier and with mitigation policies



Conclusions

- Enabling and relief policies, specifically those focused on measures that allow people to follow social distancing policies, are linked to better outcomes.
- Specific social distancing measures (face masks, preventing indoor gatherings, and having clear guidance for restaurants, bars, entertainment venues and gyms) are linked to a reduction in the fall surge.
- Enacting policies early – before the fall surge took off – was another key indicator of success.

Conclusions

- It is the combination of these measures that is the biggest indicator of success.
- D.C. successfully implemented all of these policies together and was, correspondingly, one of the most successful states in the fall surge.

Questions?

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Thank you.

About ODCA

The mission of the Office of the District of Columbia Auditor (ODCA) is to support the Council of the District of Columbia by making sound recommendations that improve the effectiveness, efficiency, and accountability of the District government.

To fulfill our mission, we conduct performance audits, non-audit reviews, and revenue certifications. The residents of the District of Columbia are one of our primary customers and we strive to keep the residents of the District of Columbia informed on how their government is operating and how their tax money is being spent.