

## NASEM Forum on Microbial Threats

# Science Advice and Trust in the U.S. During the Pandemic

Roger Pielke Jr.  
University of Colorado Boulder

22 September 2021  
Washington, DC



University of Colorado **Boulder**

**The US is almost alone  
in its lack of a high level,  
expert advisory body on  
COVID-19, and this  
matters for policy and  
politics, including trust.**

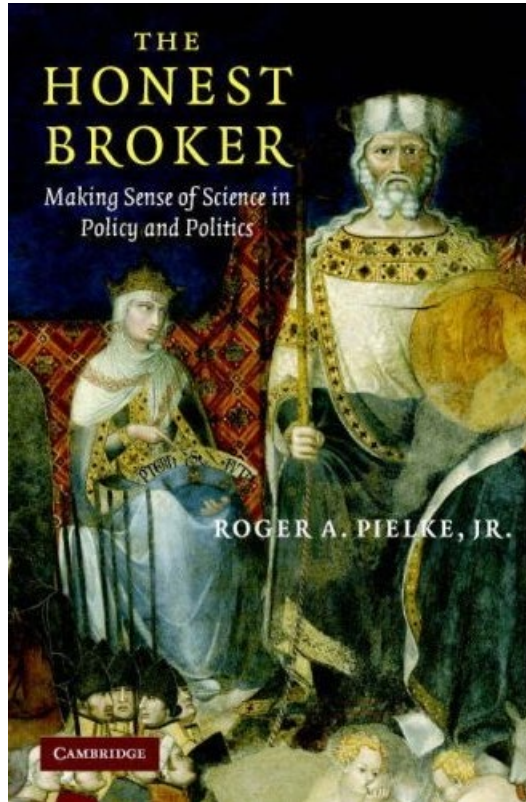




*“These smug pilots have lost touch with regular passengers like us. Who thinks I should fly the plane?”*



# Four modes of science & policy



## VIEW OF DEMOCRACY

Interest group pluralism

Elite Conflict

## VIEW OF SCIENCE IN SOCIETY

Linear Model

Stakeholder Model

Pure Scientist

Issue Advocate

Science Arbiter

Honest Broker of Policy Alternatives



## **Expert advice comes in different forms** **(and in this talk I focus mainly on category 1 below)**

- 1. Science advice for policy making (e.g., when and how to open schools?)**
- 2. Data collection and dissemination (e.g., Covid-19 tracking)**
- 3. Regulatory guidance (e.g., vaccine approval)**





# EScAPE: Evaluation of Science Advice in a Pandemic Emergency



The header of the EScAPE website features a logo on the left consisting of a red circular icon with a globe and a clock. To its right, the text "EScAPE" is displayed in large red letters, with "Evaluation of Science Advice in a Pandemic Emergency" in smaller white text below it. A navigation bar in light blue contains links: Home, About, Project Teams, Partners, Publications, Resources, News, Blog, and Contact Us. In the top right corner, there is a Twitter icon and the text "Follow EScAPE on Twitter". Below the navigation bar is a world map with red markers indicating project leads in various countries: Canada, United States, Costa Rica, Chile, United Kingdom, Sweden, Netherlands, Switzerland, Italy, Israel, India, South Korea, Japan, Australia, and New Zealand. The text "Current Project Leads" is centered below the map. Below the map is a black section with white text.

**EVALUATION OF SCIENCE ADVICE IN A PANDEMIC EMERGENCY**

Scientific knowledge and expertise is increasingly important in support of effective decision making. In recent decades, the United States and other nations around the world have designed and put into place institutional mechanisms to better secure science advice. The Coronavirus pandemic has put these institutions to the test, offering a rare opportunity to assess their performance in the context of a global crisis. This project performs a comparative, international evaluation of mechanisms of science advice in the pandemic emergency. As the pandemic continues, the results of this research will be of potential immediate relevance to institutions that are addressing the continuing need for science advice.



University of Colorado **Boulder**



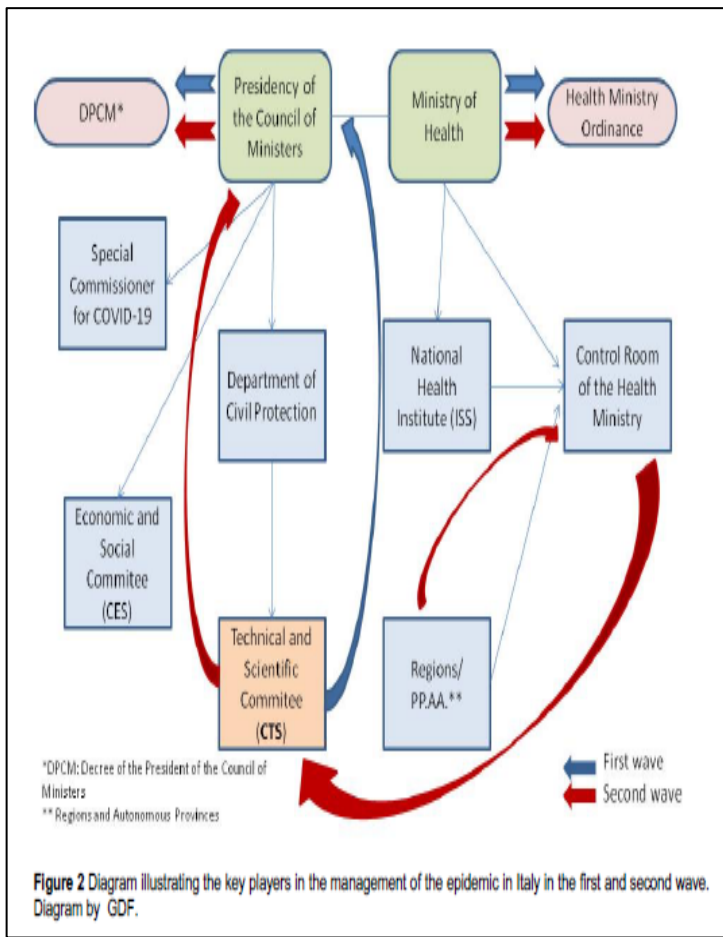
National Science Foundation



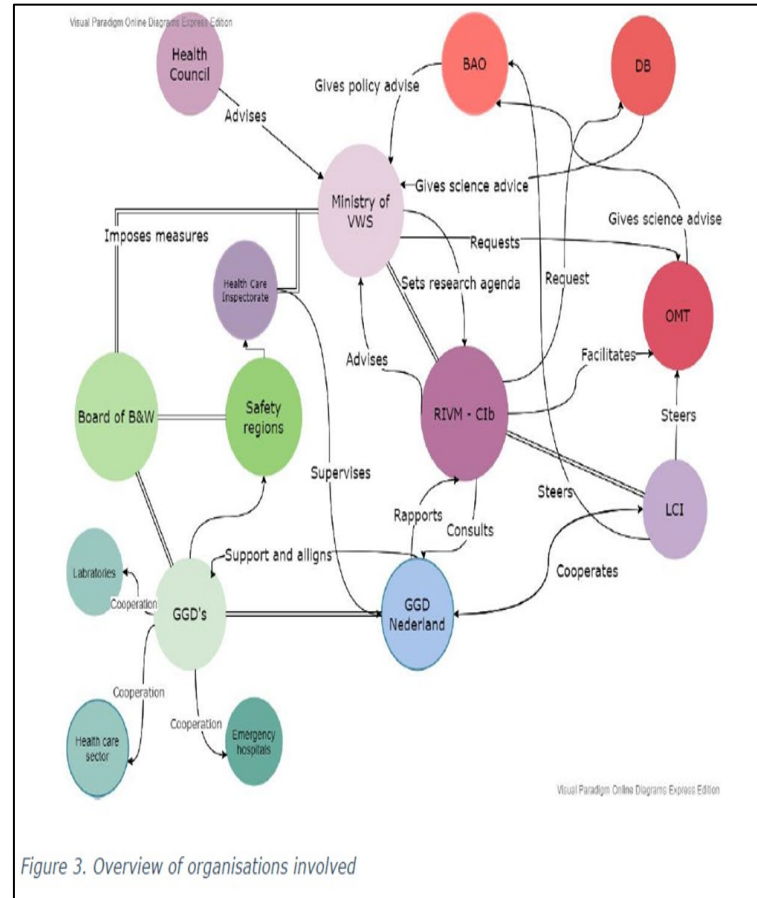
University of Colorado **Boulder**

# 20 total EScAPE case studies

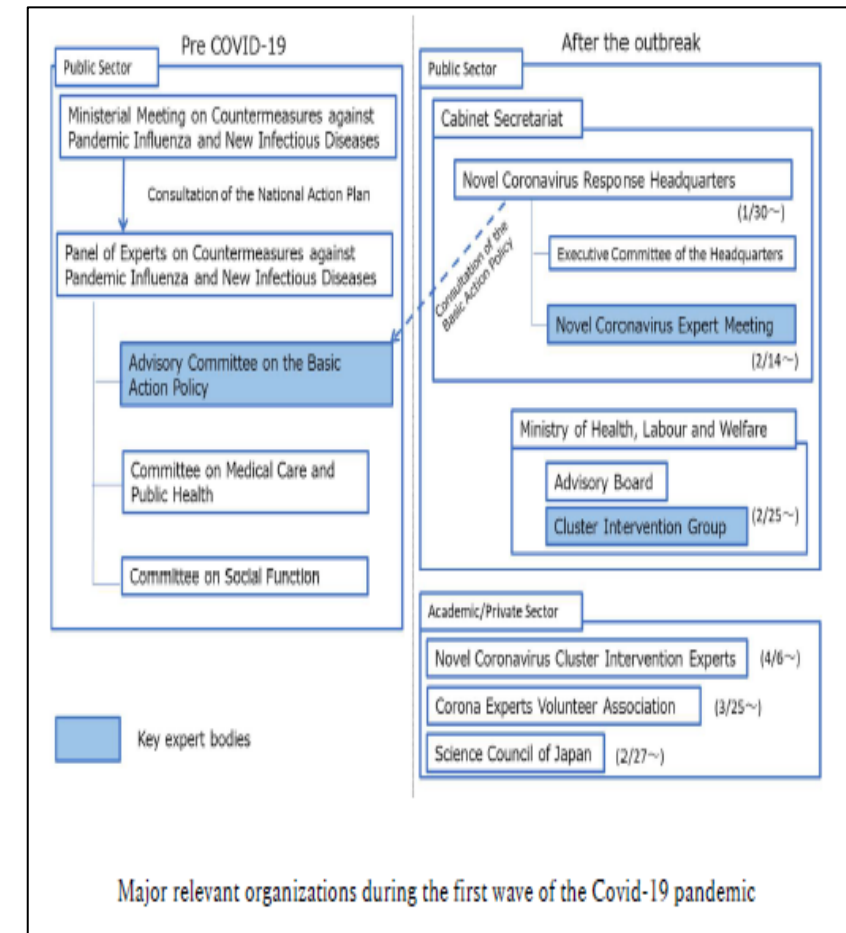




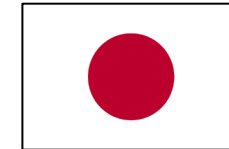
Camporesi et al. 2021, EScAPE



Aarts et al. 2021, EScAPE

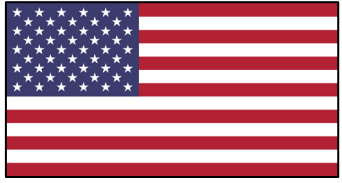


Sato et al. 2021, EScAPE

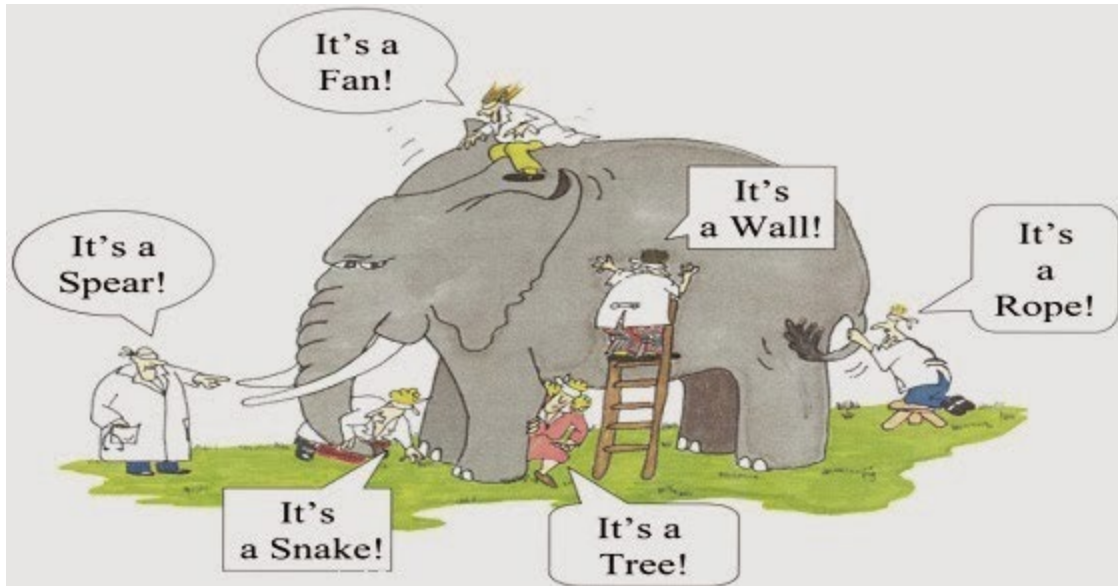


University of Colorado **Boulder**



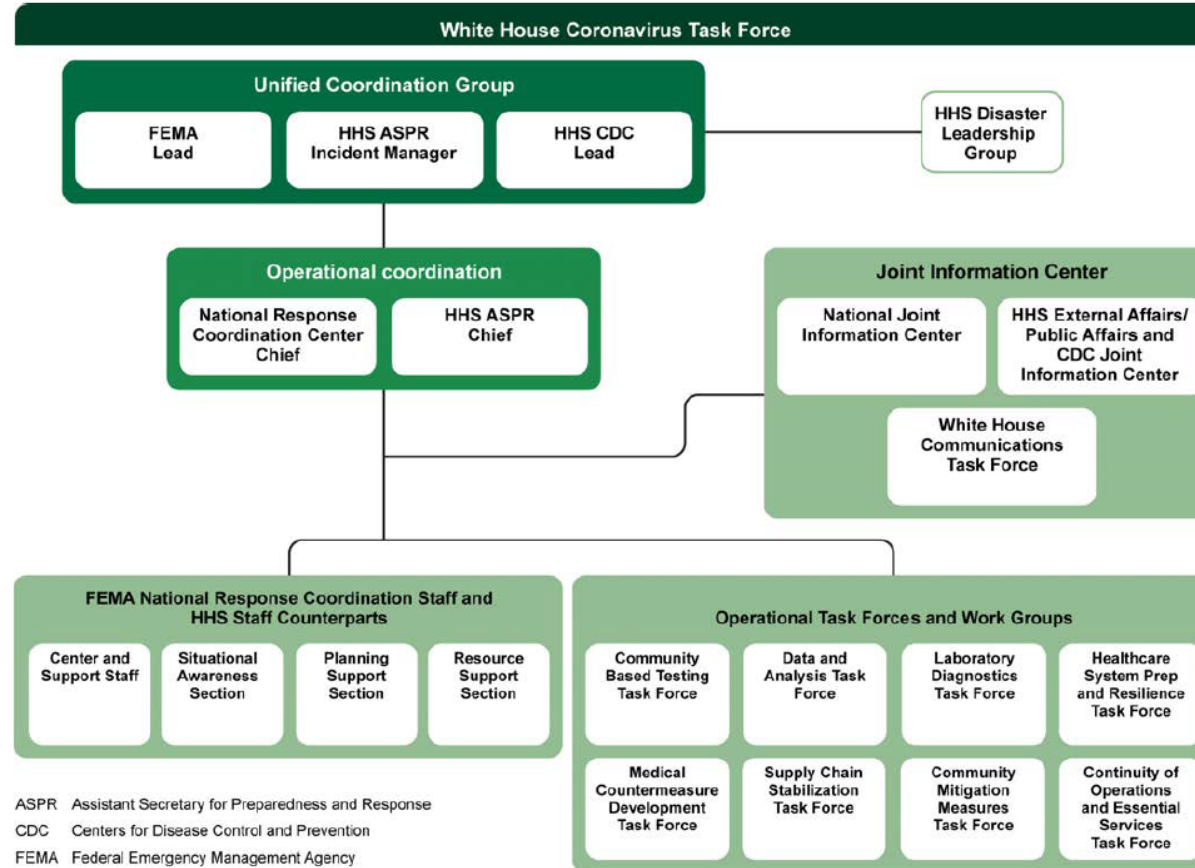


# Blind men and the elephant?



# US pandemic response planning - No Advisory Mechanism (initially under Trump)

Figure 15: Organizational Structure of the Unified Coordination Group

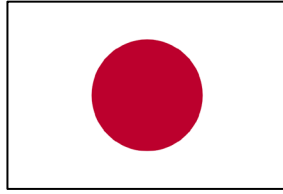


ASPR Assistant Secretary for Preparedness and Response  
CDC Centers for Disease Control and Prevention  
FEMA Federal Emergency Management Agency  
HHS Department of Health and Human Services

Source: GAO analysis of National Response Coordination Center documentation. | GAO-20-625

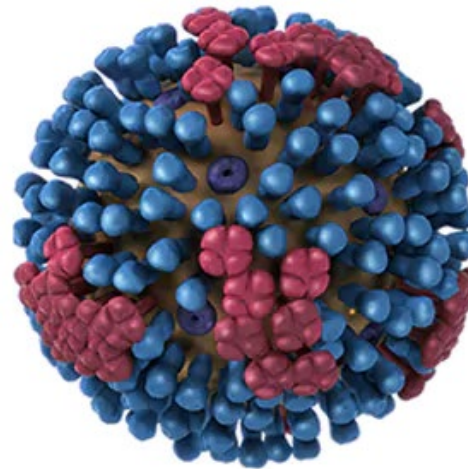
<https://www.gao.gov/assets/710/707839.pdf>





“In Japan, the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response, enacted in 2012, **stipulates science advisory processes related to pandemic**. The Act, established in response to lessons learned through the 2009 swine flu pandemic, provides the basic framework for responding to pandemics by Japanese national and local governments.”

Sato et al. 2021 EScAPE



H1N1 Swine Flu, 2009-2010



Ad Hoc Science Advice?



# Dr. Rachel Walensky, U.S. CDC Director



17 March 2021

Subcommittee on Oversight and Investigations  
Committee on Energy and Commerce  
U.S. House of Representatives

“[O]ver the last 12 years, the United States has faced four significant emerging infectious disease threats – the H1N1 influenza pandemic, Ebola, Zika, and COVID-19. While urgency demanded rapid and unique responses to each of these threats, **none resulted in the sustained improvements** and investments needed in our nation’s public health infrastructure. This **lack of preparation** continues to present significant challenges in our ongoing fight to tackle COVID-19.”

[https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Witness%20Testimony\\_Walensky\\_OI\\_2021.03.17.pdf](https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Witness%20Testimony_Walensky_OI_2021.03.17.pdf)



University of Colorado **Boulder**








The Atlantic

The COVID Tracking Project collects and publishes the most complete testing data available for US states and territories.



**ROBINSON MEYER** is a staff writer at The Atlantic. He is the author of the newsletter *The Weekly Planet*, and a co-founder of the COVID Tracking Project at The Atlantic.

Connect  Facebook  Twitter 



**ALEXIS C. MADRIGAL** is a staff writer at The Atlantic, a co-founder of the COVID Tracking Project, and the author of *Powering the Dream: The History and Promise of Green Technology*.

Connect  Twitter 



“[W]hen the White House reproduced one of our charts, it confirmed our fears: The government was using our data. For months, the American government had **no idea** how many people were sick with COVID-19, how many were lying in hospitals, or how many had died. And **the COVID Tracking Project at The Atlantic, started as a temporary volunteer effort, had become a de facto source of pandemic data for the United States.**”

Meyer and Madrigal, 15 March 2021

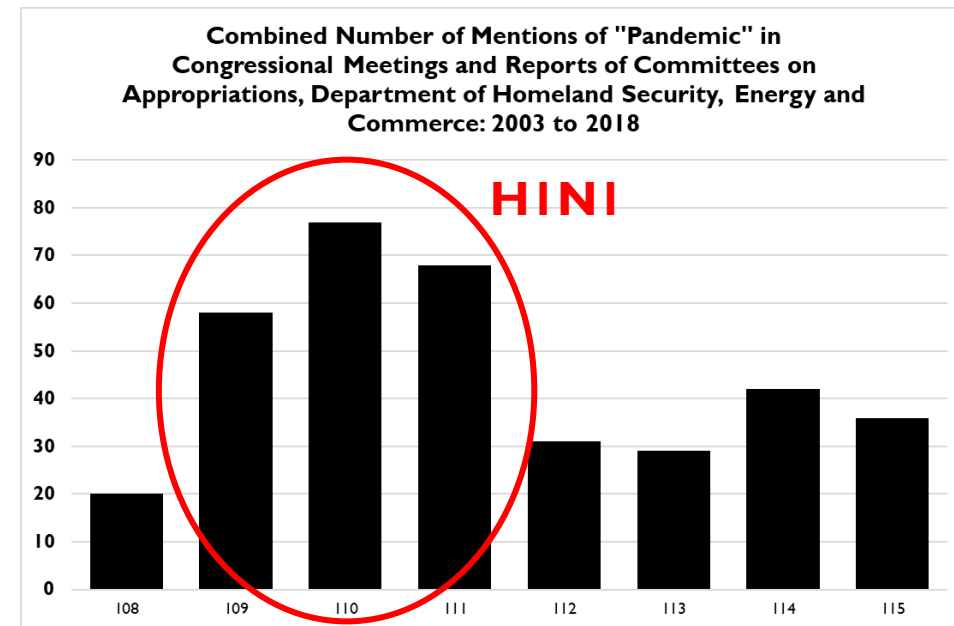
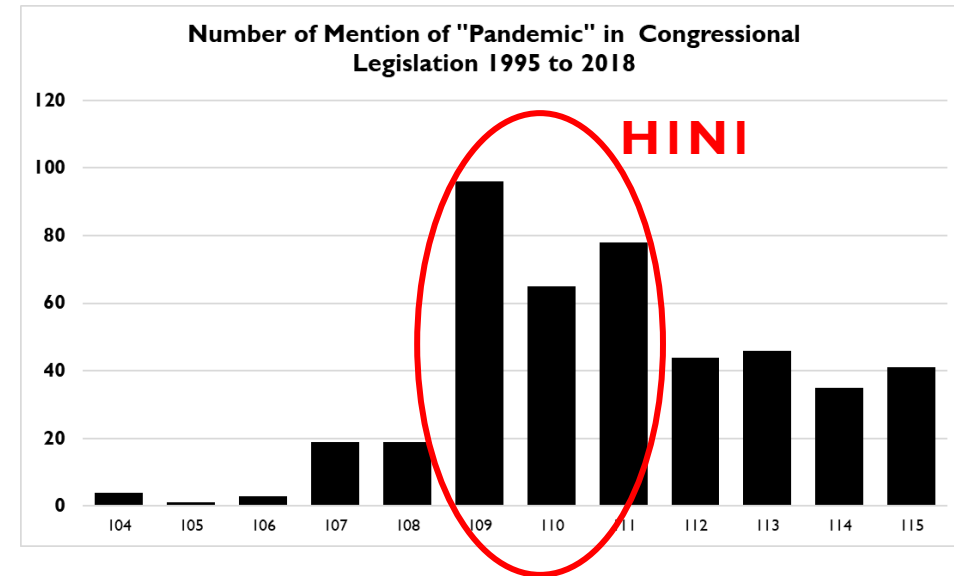
<https://www.theatlantic.com/science/archive/2021/03/americas-coronavirus-catastrophe-began-with-data/618287/>



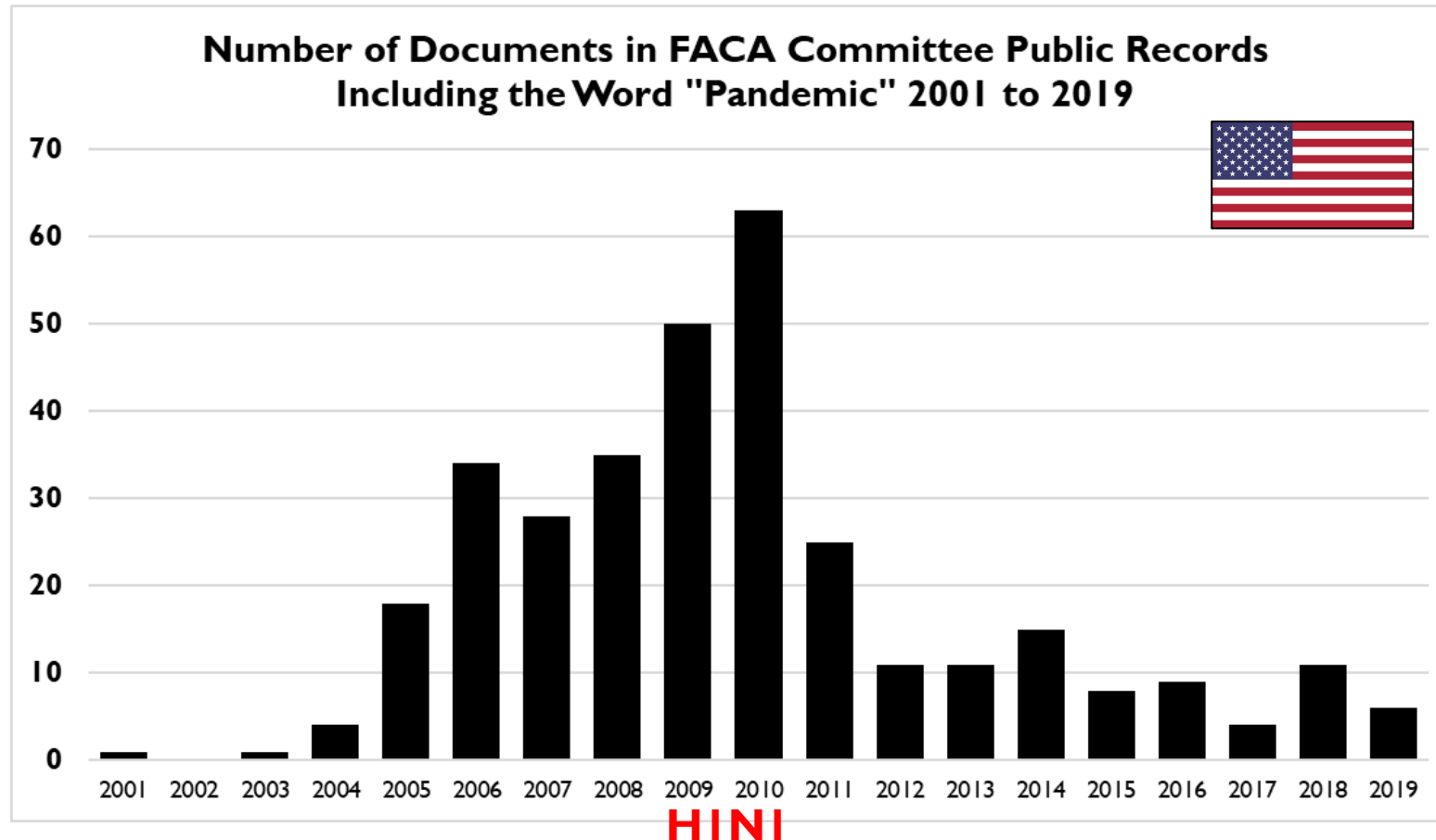
University of Colorado **Boulder**



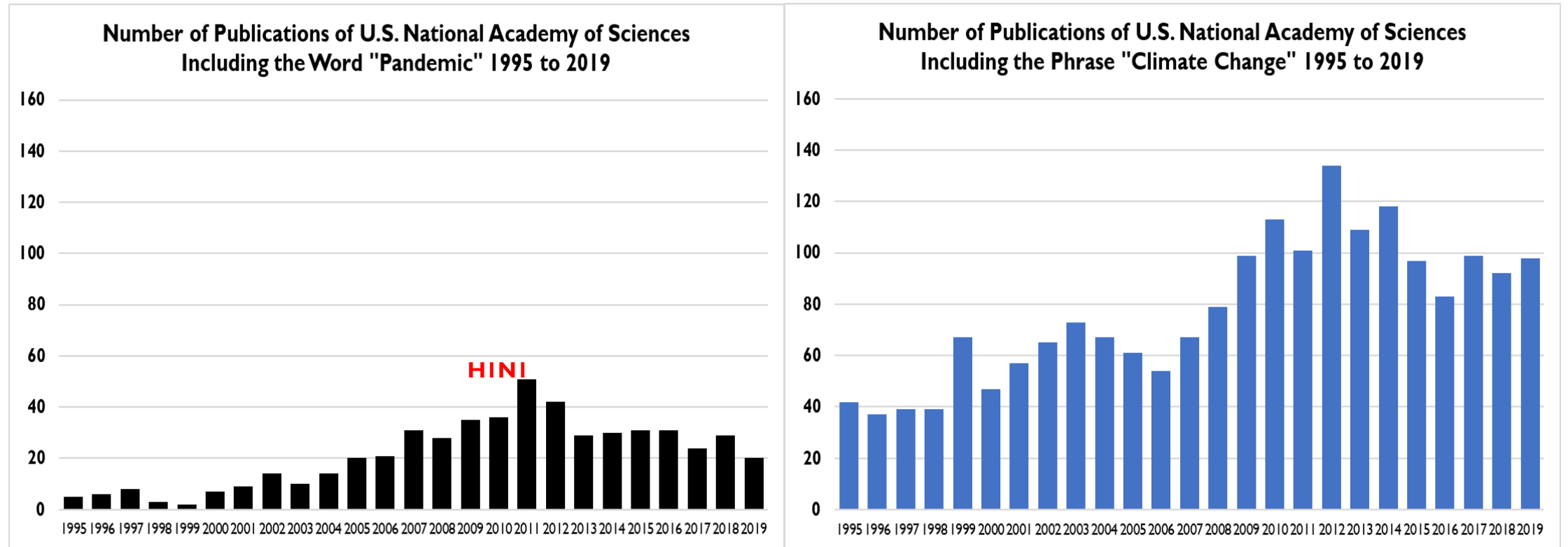
# Did US Congress lose focus on pandemic planning after H1N1 in 2010?



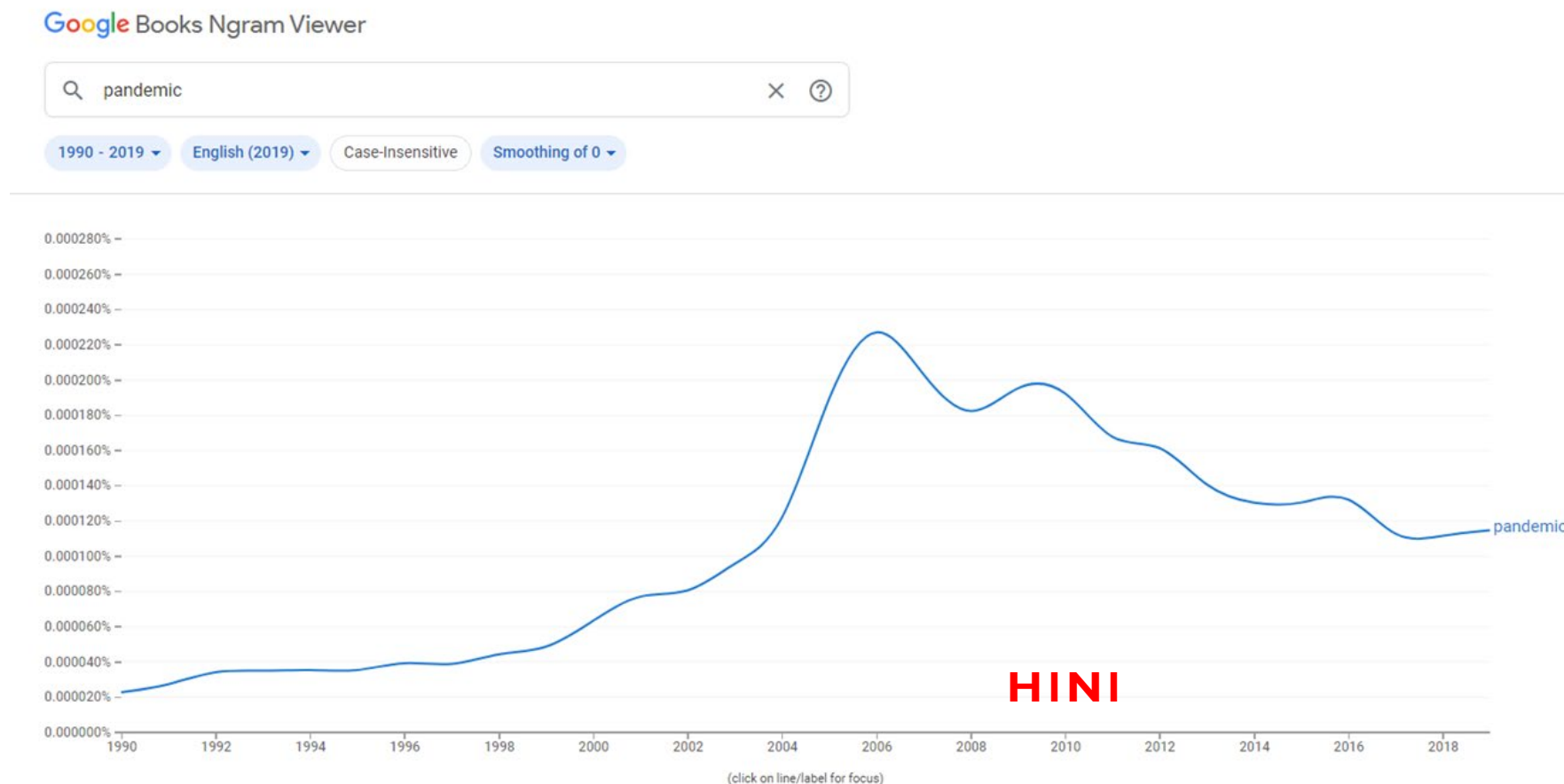
# Attention deficit in expert advice?



# Priorities in U.S. science advice?



# Academic focus (in English language)?



# Despite national failures, states responded



“... processes of science advice on North Carolina pandemic response performed fairly well in large part because the particular individuals involved were committed to mutual respect and data transparency. Such interpersonal dynamics are not guaranteed in government over time.”

Weinkle 2021, EScAPE





# Informal processes based on previous experience

“Overall, Japan’s scientific advisory system which responded to the first wave of the Covid-19 pandemic performed in an unexpected, yet respectable manner. While Japan’s preparedness for the pandemic was less than optimal, formal processes for scientific advice did work, and informal processes made it possible for the experts to contribute to their full potential.”

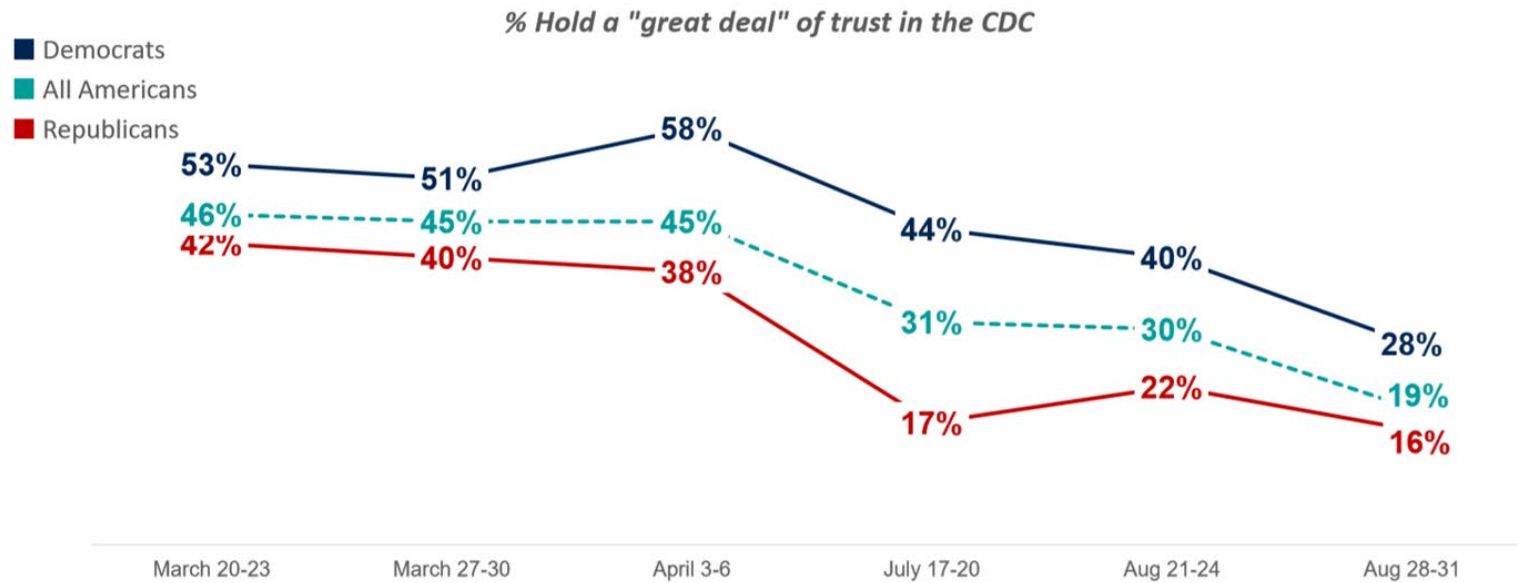
Sato et al. 2021, EScAPE



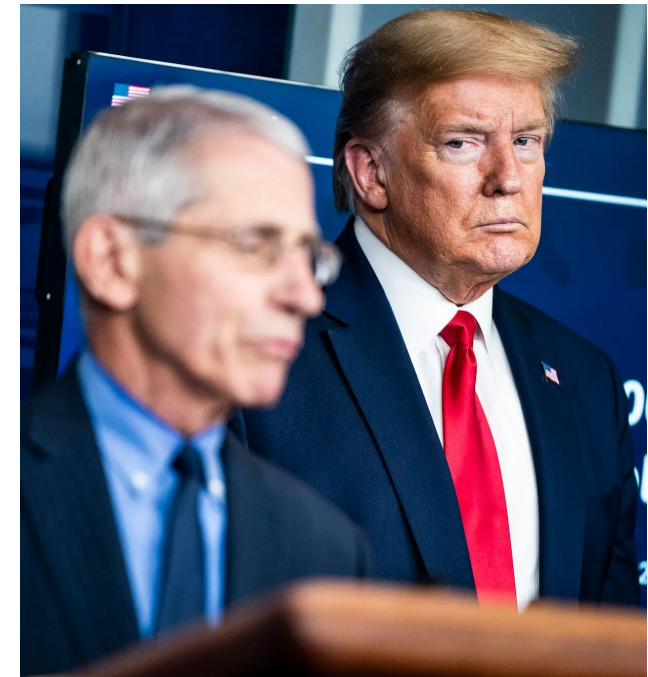
# The power to delegitimize ...

## Trust in CDC falling

Q. How much trust do you have in the Centers for Disease Control, or CDC, to provide you with accurate information about coronavirus or COVID-19?



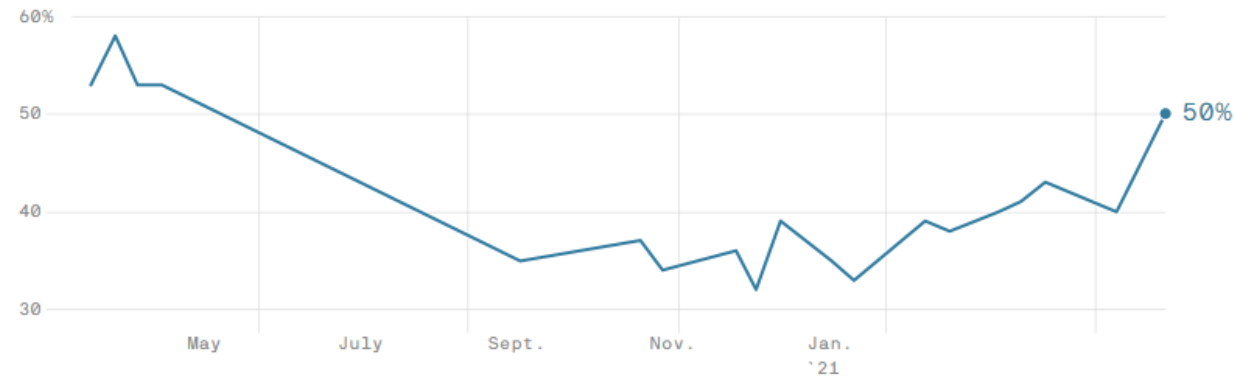
Source: Axios-Ipsos Coronavirus Index



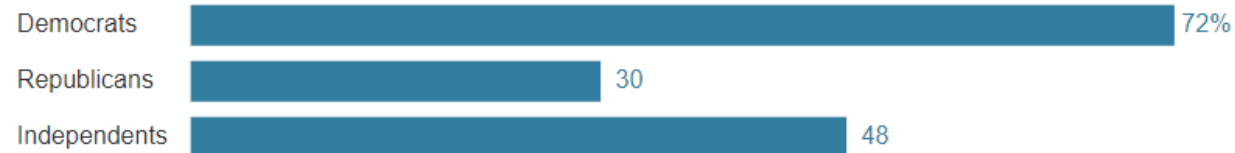
# ... and the power to legitimize

U.S. adults who say they trust the federal government to provide them with accurate information about COVID-19

Total; March 13, 2020 to Jan. 25, 2021



By party; Jan. 22-25, 2021



Data: Axios/Ipsos survey; Chart: Danielle Alberti/Axios

<https://www.axios.com/axios-ipsos-poll-federal-trust-covid-surges-95aeb75e-b9ad-4ccd-b5e5-3301e7c68a6f.html>



University of Colorado **Boulder**

# Examples

- **Masks** (science mis-used as a façade in an effort to protect short supplies of PPE)
- **Boosters** (announcement of rollout preceded FDA independent recommendations, political appointees vs career officials)
- **Origins** (lack of transparency, summary IC assessment)
- **NAS** (early committee set up at request of OSTP and HHS, little-used, invisible, now apparently inactive)



**The US is almost alone  
in its lack of a high level,  
expert advisory body on  
COVID-19, and this  
matters for policy and  
politics, including trust.**





# Special thanks!

- **The EScAPE researchers (60+ in 17+ countries)**
- **INGSA: International Network for Government Science Advice (and especially Kristiann Allen and Peter Gluckman)**
- **Dutch EScAPE Team: Janne Aarts, Eva Gerth, Phil Macnaghten, Harro Maat, David Ludwig**
- **Japan EScAPE Team: Yasushi Sato, Hiroyuki Kano, Tomohisa Sumida, Tateo Arimoto**
- **Italy EScAPE Team: Silvia Camporesi, Federica Angeli, Giorgia Dal Fabbro**
- **UK EScAPE Team: James Wilsdon, Warren Pearce, Jack Stilgoe**
- **North Carolina EScAPE lead: Jessica Weinkle**
- **EScAPE Secretariat: Ami Nacu-Schmidt, Taylor Bartlett**

**Of course, I am solely responsible for all claims and statements made in this presentation!**



# Thank You!

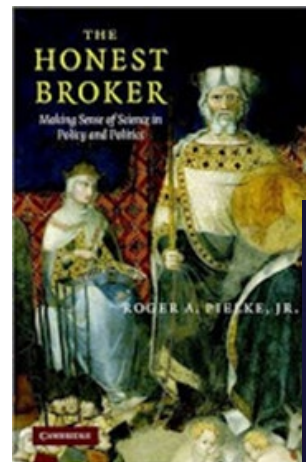
- The Honest Broker Newsletter (please sign up!):
  - <https://rogerpielkejr.substack.com/>

## Contact

[pielke@colorado.edu](mailto:pielke@colorado.edu)



@RogerPielkeJr



University of Colorado **Boulder**