

EARTH WEEK 2020

AT UMASS BOSTON

April 15-22

Celebrating the 50th Anniversary of Earth Day



COVID-19 and Climate: Policy and Practice

April 22, 2020

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Social Media

#earthweek2020umb

#earthday2020

#climate

#covid19

@McCormackGrad

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How are COVID-19 & Climate Change Similar

- Lag in a non-linear system – later action means greater negative impacts; later action = greater costs
- Need to Balance Health of People/Planet, and Economy
- Equity
- Externalities
- Global-local dynamics

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How are COVID-19 & Climate Change Responses Similar

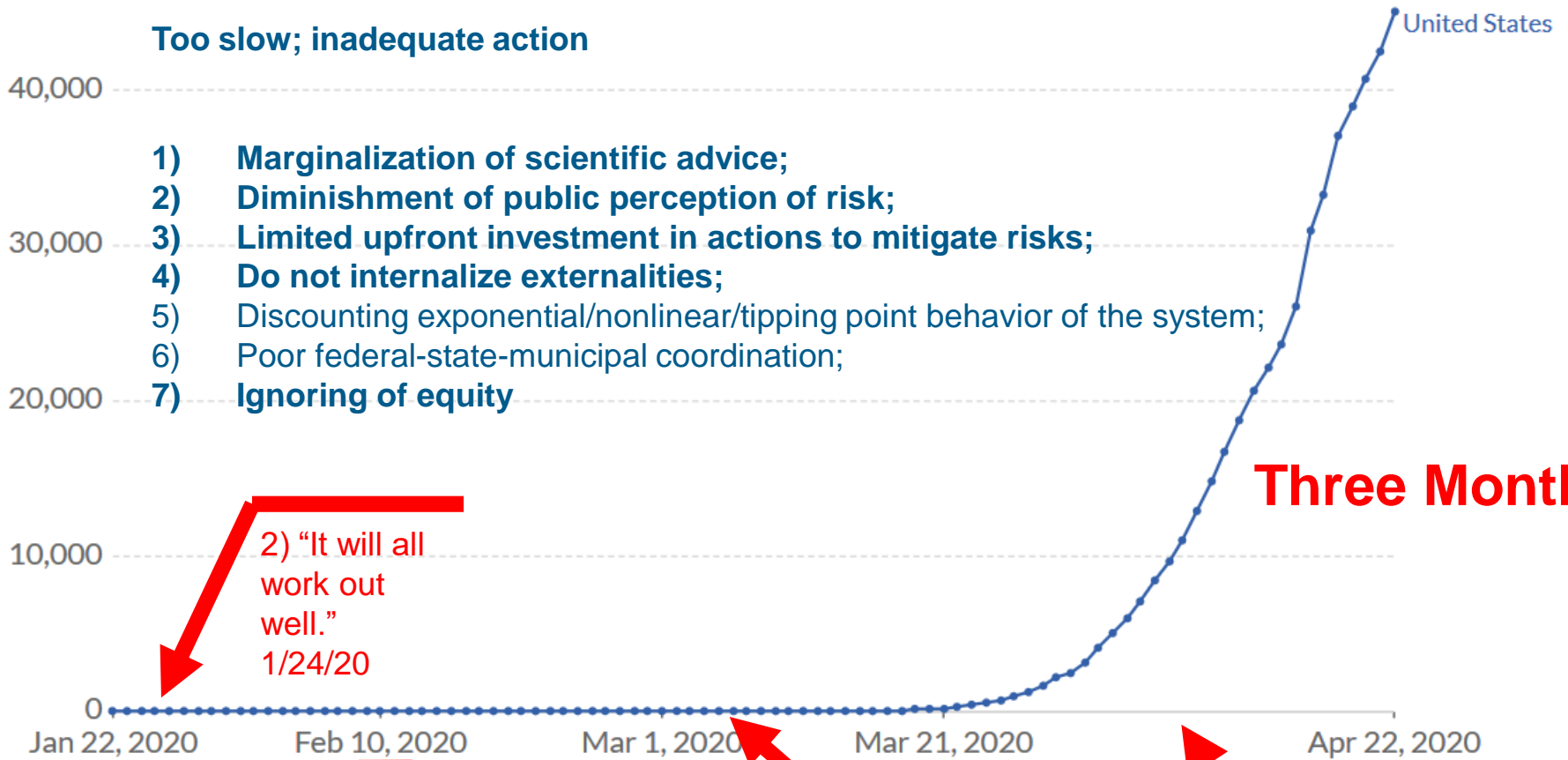
- Too slow
- Inadequate action

COVID-19 Deaths

LINEAR

Too slow; inadequate action

- 1) Marginalization of scientific advice;
- 2) Diminishment of public perception of risk;
- 3) Limited upfront investment in actions to mitigate risks;
- 4) Do not internalize externalities;
- 5) Discounting exponential/nonlinear/tipping point behavior of the system;
- 6) Poor federal-state-municipal coordination;
- 7) Ignoring of equity



1) Disbanded the Global Health Security and Biodefense unit in the NRC (2018).

3) No use of WHO test kits; inadequate development/rollout of US kits (Jan-Feb)

4) Spring break exposures (mid-March)

7) Ventilator guidelines and structural racism (April 7)

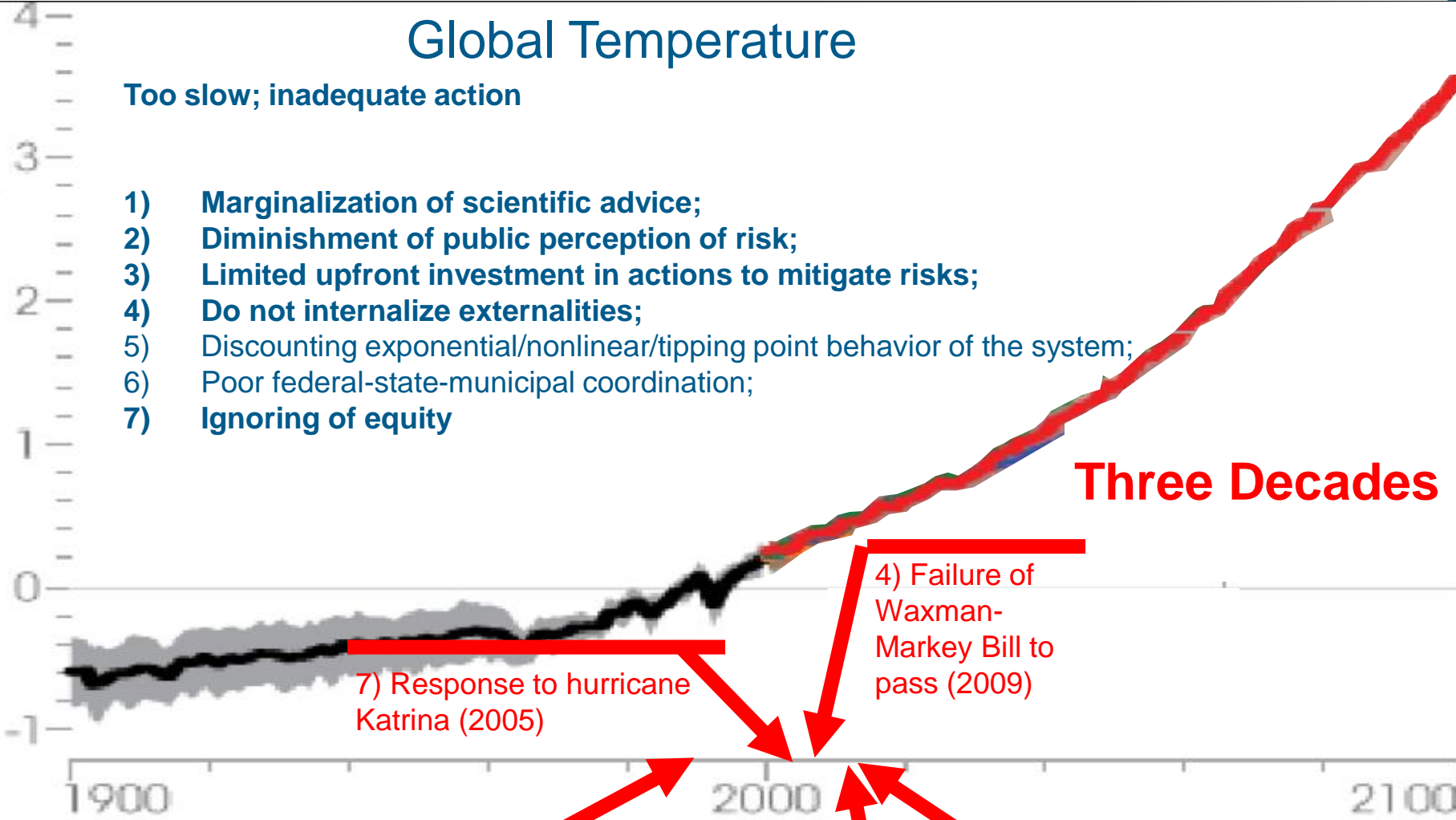
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Global Temperature

Too slow; inadequate action

- 1) Marginalization of scientific advice;
- 2) Diminishment of public perception of risk;
- 3) Limited upfront investment in actions to mitigate risks;
- 4) Do not internalize externalities;
- 5) Discounting exponential/nonlinear/tipping point behavior of the system;
- 6) Poor federal-state-municipal coordination;
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Global Surface Warming (°C)



Three Decades

7) Response to hurricane Katrina (2005)

4) Failure of Waxman-Markey Bill to pass (2009)

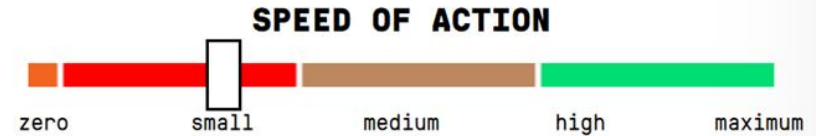
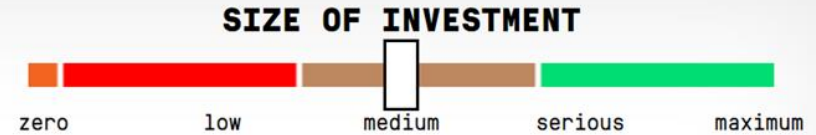
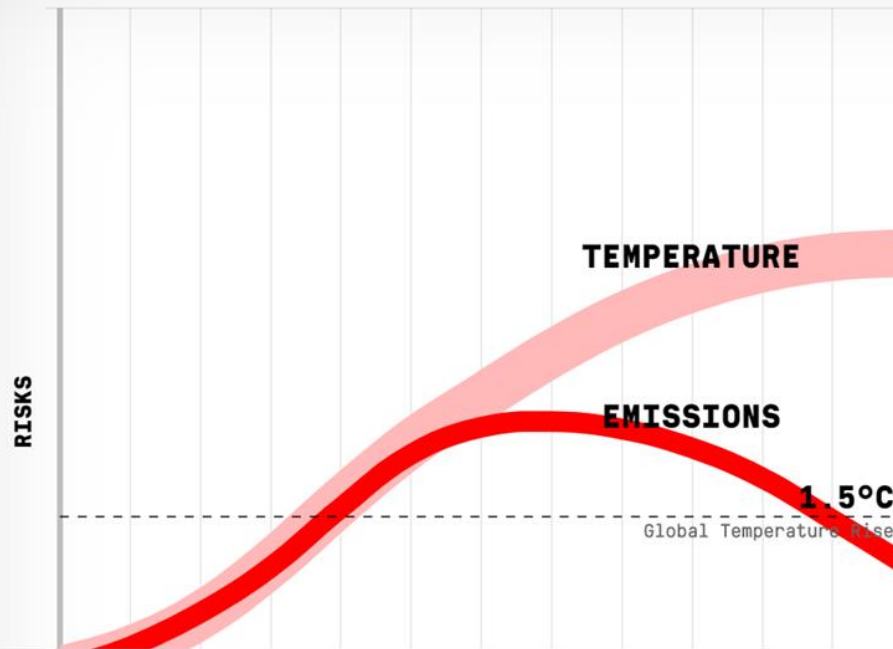
3) Uncertainty in RE production tax credit 1992 to present

2) First time Trump calls climate change a "hoax" (2013)

1) Cut role of science in EPA/ U.S. Global Change Research Program (2017-present)

Global temperature projections to 2100 in high growth scenario. Source: NASA Earth Observatory, based on IPCC AR4 (IPCC, 2007); <https://www.eea.europa.eu/data-and-maps/figures/observed-and-projected-global-mean>





SCENARIO

- BUSINESS AS USUAL
- "MIDDLE GROUND"
- GREEN NEW DEAL

With the level of climate action you chose (**medium** investment; with **small** speed of action), the model suggests that average global surface temperature would likely reach 3-4°C by 2100 with catastrophic (and permanent) impacts on humanity and the biosphere, including: floods, droughts, mass extinctions...

Conceptual model derived from peer-reviewed science, including IPCC 2018 special report on the impacts of global warming of 1.5 ° C; and “Emissions – the ‘business as usual’ story is misleading” in Nature, Issue 577, 618-620 (2020); Zeke Hausfather & Glen P. Peters. Curves are smoothed to reflect broad trends in available data.

This is a beta version of #FlattenTheClimateCurve ©2020. Tool designed by Gan Golan and Andrew Boyd; programming by Adrian Carpenter; video-explainer by Alex Cequea; science advising by Richard Heinberg (Senior Policy Analyst, Post-Carbon Institute) and Bill Becker (Executive Director, Presidential Climate Action Project); a project of ClimateClock.world and Beautiful Trouble.

This tool is free and available to the public under a creative commons license.

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Thank you!

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