



Catalyst

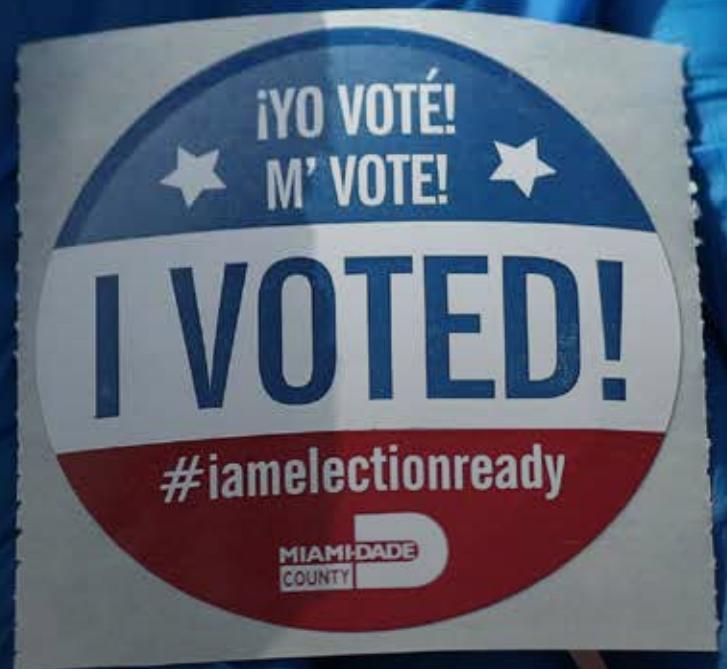
Volume 20, Summer 2020

What Will November Look Like?

Ensuring a safe election


Climate Risks and COVID-19 Collide

We Need Science to Build a Better World



Catalyst, ISSN 1539-3410, is published quarterly by the Union of Concerned Scientists. Text of articles from *Catalyst*, duly acknowledged, may be reprinted free of charge. Artwork may not be reproduced.

© 2020 Union of Concerned Scientists

 *Catalyst* is printed on chlorine-free recycled paper with 100% post-consumer content.

EDITORIAL DIRECTOR
Seth Shulman

MANAGING EDITOR
Bryan Wadsworth

PRODUCTION MANAGER
Heather Tuttle

CONTRIBUTING EDITOR
Pamela Worth

CONTRIBUTING WRITERS
Elliott Negin
Jiayu Liang

DESIGN
Rigsby Hull

FRONT COVER
Joe Raedle/Getty Images

BACK COVER
Noam Galai/Getty Images

The Union of Concerned Scientists puts rigorous, independent science to work to solve our planet's most pressing problems. Joining with people across the country, we combine technical analysis and effective advocacy to create innovative, practical solutions for a healthy, safe, and sustainable future.

This publication is financed by contributions from individual members; you can join UCS by sending a tax-deductible contribution of \$25 or more to UCS Development, Two Brattle Square, Cambridge, MA 02138-3780.

CHAIR
Anne Kapuscinski

PRESIDENT
Kenneth Kimmell

NATIONAL HEADQUARTERS
Two Brattle Square
Cambridge, MA
02138-3780

PHONE
(617) 547-5552

EMAIL
ucs@ucsusa.org

WEB
www.ucsusa.org

Science—and UCS— Must Do Better

Nationwide protests over the killings of George Floyd and Breonna Taylor—among many others—by police are a direct response to the inescapable reality of racism in the United States. That these protests are happening right now, in the midst of a pandemic that places protesters' lives at risk from being together, speaks to the depth of injustice, and the urgency of the moment.

White supremacy is pervasive in our country. It manifests as police violence and profiling. As Black people being used as guinea pigs for public health. As institutional and systemic racism in housing, health care, food, workplaces, and all spheres of life.

White supremacy harms us in insidious and overt ways. It threatens the lives and safety of Black, Indigenous, and Latino people, and members of other racially marginalized groups.

And despite its veneer of objectivity, rationality, and impartiality, science is not immune to White supremacy.

Science is practiced by people, and people have biases. In our hands, science can be a powerful tool for solving problems and making people's lives better. But it can also be used to do harm and obstruct progress.

We can look to historic examples: of enslaved Black women who were operated on without anesthesia by the founder of modern gynecology, or the Tuskegee experiments that kept Black men unknowingly infected with syphilis that could have been treated.

Or we can look to today—because the sciences still have a long way to go. More than 75 percent of almost 600 Black women scientists surveyed in a 2015 study reported having to prove themselves again and again in their workplaces. Nearly half of all Black and Latina scientists surveyed reported having been mistaken for custodial staff.

Systemic racism, anti-Blackness, and White supremacy have also fundamentally shaped our institution, the Union of Concerned Scientists. White leadership and staff have fallen short and need to work much harder and faster to change practices and structures to create a more equitable workplace and world, and to be an anti-racist organization.

We issue this statement to make our stance clear:

We condemn the racism that persists in the United States and the racist actions of the Trump administration, which are literally killing Black and Brown people across the country.

We condemn the Trump administration's flagrant abuses of power.

We condemn the use of police and military violence against unarmed and peaceful protestors and journalists.

We condemn the targeting of Black, Indigenous, and other people of color; journalists; and all those who stand up against police brutality and violence.

We are in solidarity with those risking their lives to challenge injustice.

Our White staff and leaders commit to identifying and making amends for the times UCS actions or inactions have upheld rather than challenged White supremacy, in the organization's work and in our workplace.

We commit to using science, and our own influence, in support of racial justice.

We commit to speak out, to protest, and to act together in the fight against racism.


We commit to honest conversations and mutual learning with you—our members, allies, and partners. Thank you for your support of UCS.




WHAT OUR SUPPORTERS ARE SAYING

Here's a sampling of recent feedback from the UCS Facebook page (www.facebook.com/unionofconcernedscientists) and Twitter feed (www.twitter.com/ucsusa).


ON THE TRUMP ADMINISTRATION'S FIRING OF INSPECTORS GENERAL


 @dramthethief:
It's getting to the point where it's no longer disappointing but downright depressing. A great, functional country being disassembled from the inside out.


 Cheryl Owen:
This is an egregious abuse of power.

 Dan Collins:
When you control the flow of information, you control the information people are using to form their opinions. Thereby subverting democracy.


ON UCS COVERAGE OF DATA MANIPULATION AND THE DISMISSAL OF EXPERT VOICES IN THE COVID-19 PANDEMIC


 @jp_timko:
When a nonpartisan organization speaks this loudly on public policy, there is a reason. We as citizens need information. Very solid information here.


 Phillip Noe:
A bit like Florida not allowing officials to mention climate change. Corporate-sponsored lawmakers are too often willing to put people at risk.

 Ray Godfrey:
No scientific research in the interest of people's health should ever be suppressed by any president.


ON VOTING BY MAIL (SEE P. 8)


 @RWRtravelers:
I love our vote by mail because I can research the issues/amendments and judges while I vote. No guessing at the ballot box.


 Bob Ka'Pla:
The real issue is not voter fraud, but voter suppression.

 Judith White Hughes:
Washington State votes by mail. There are advantages to having a paper trail and the ability to check online that your vote has been counted and entered correctly.

ON UCS HOLDING ITS OWN HEARING ON AN ANTI-SCIENCE EPA PROPOSAL

 Ted Myers:
This is an amazing effort. I have been donating to UCS since 1986. They are the most effective organization that I know of in bringing top experts in science to address critical issues before the public and Congress.

 Margaret Carreiro:
Scientists will not be silenced! I am so glad to see that this occurred!

 Paula Lucas:
Every day I am more and more thankful that groups like yours exist! Please keep on keeping logic and science alive in this climate!

[IN THIS ISSUE]

- 8 **Ensuring a Safe Election**
Protecting our health and preserving our democracy are not mutually exclusive
- 14 **We Need Science to Build a Better World**
UCS is fighting back against the administration's sidelining of science
- 2 *First Principles*
Science—and UCS—Must Do Better
- 3 *Observations*
- 4 *Advances*
- 12 *Inquiry*
A UCS Roundtable on Climate Change and COVID-19
- 18 *Ideas in Action*
Emerging Stronger from the COVID-19 Crisis
- 20 *Donor Profile*
Green Business Is Good Business for David Deutscher
- 22 *Final Analysis*
US Leadership Turned Its Back on Black, Latino Workers

Is There a Solution for California's Water Woes?



Lake Oroville, California's second largest reservoir, went from record low levels in 2014 (left) to flood conditions requiring the use of its main and emergency spillways, which failed under the extreme flows, in 2017 (right).

New analysis by the Union of Concerned Scientists finds that aging infrastructure, extreme cycles of drought and flooding caused by climate change, and rising demand for water threaten to overwhelm California's water system, and the state is not prepared. We also found, however, that changes to California's hydroclimate—where, how, and when the state gets its water—can be measured with enough certainty to revise existing water management plans in a way that can meet these challenges.

“Climate change has been seen as too uncertain, too distant, or too hard to plan for, particularly by local water agencies,” says Western States Climate and Water Scientist Pablo Ortiz, who coauthored

the analysis, *Troubled Waters: Preparing for Climate Threats to California's Water System*. “And that’s part of why California has been relying on

the past to inform its future water management planning. But we have solid data indicating what’s ahead—including

some shifts in the hydroclimate that are already creating predictable stress on our water resources.” These trends include a decline in California’s

snowpack, more precipitation occurring as rain instead of snow, and volatility between dry and wet years.

The report outlines these projections; illustrates the risks for California’s communities, businesses, and agriculture under a business-as-usual approach to water management; and provides recommendations on how the state can jump-start the comprehensive climate planning that is needed.

“Our water management agencies have the opportunity to revise their strategies not only to reflect the current hydroclimate, but also to achieve long-term resilience,” Ortiz says. Failing to act, he cautions, will intensify the existing inequity between wealthy communities and those already facing water shortages and insecurity. Read the full report at www.ucsusa.org/resources/troubled-waters.

**SWINGS BETWEEN
VERY WET AND VERY DRY YEARS
ARE LIKELY TO
INCREASE,
LEADING TO GREATER RISKS
OF MUDSLIDES AND WILDFIRES.**



The dead zone has a severe impact on the Gulf shrimp industry—valued at more than \$400 million annually—and its workers, many of whom are immigrants or people of color.

Downstream from Big Ag, a Costly Dead Zone

Agricultural practices in the Midwest have caused millions of dollars in damage per year to Gulf Coast fisheries and marine habitats, but improving these practices could have real economic benefits, a new UCS analysis has found. Driven in large part by public policies that reward maximum yields above all else, farms across the Midwest typically apply more nitrogen fertilizer than their crops need. That nitrogen washes into the Mississippi and Atchafalaya rivers that empty into the Gulf of Mexico, contributing to a “dead zone” that contains too little oxygen to support marine life such as fish and shrimp.

UCS economist Rebecca Boehm, author of the report *Reviving the Dead Zone*, estimates that agricultural nitrogen pollution—which represents between 60 and

80 percent of the total nitrogen in the Gulf—has caused between \$552 million and \$2.4 billion (2018 dollars) in damage to Gulf fisheries and marine habitat

each year from 1980 to 2017. Changing agricultural practices to prevent nitrogen losses from farms, says Boehm, will be costly but her research shows that there are economic benefits for the Gulf that must also be considered. “There could be a major return on investment for people whose livelihoods depend on Gulf marine life,” she says. “And along with the obvious benefits of healthier waters downstream, we’ll see healthier soils upstream, which is good for farmers too.” Her report includes recommendations for policymakers to bring Gulf Coast communities affected by this problem to the decisionmaking table; read the full findings at www.ucsusa.org/resources/reviving-dead-zone.

MAKE AN IMPACT THROUGH YOUR DONOR ADVISED FUND

If you have money set aside for charitable giving through a **DONOR ADVISED FUND**, consider using it to support the Union of Concerned Scientists.

You can help fight for a healthy planet and safer world by making a direct gift, or naming UCS as a remainder beneficiary.

Visit ACT.UCSUSA.ORG/DAF to find out how to give today.

Or, call (800) 666-8276 or email member@ucsusa.org.



UCS Joins Litigation Challenging Fuel Economy Rollback

Despite evidence proving that vehicle efficiency and emissions standards save drivers money, are cost-effective and feasible for automakers, and have reduced heat-trapping emissions and air pollution—known to exacerbate COVID-19 symptoms and susceptibility—the Trump administration issued a final rule in March weakening these standards. In response, UCS joined a coalition of nonprofit groups, along with a coalition of state and municipal governments, in lawsuits against the Environmental Protection Agency and National Highway Traffic Safety Administration. The lawsuits contend that federal agencies violated the law and the best available science in issuing their final rollback of the standards. “These agencies are obligated to make decisions that advance the public interest,” UCS President Ken Kimmell said in a public statement. “They willfully abandoned their obligations, and a bad

process predictably resulted in bad policy. Fortunately, when the administration can’t or won’t do its job, the courts give us a way to hold it accountable.”

Chevron Shareholders Call for Climate Lobbying Disclosures

At their annual meeting in May (held online), Chevron shareholders voted to support a resolution calling on the company to issue an annual report disclosing how much money it spends lobbying on climate change and explaining how these expenditures align with the goals of the 2015 Paris climate agreement. The shareholders passed the proposal with a 53 percent majority, going against the recommendation of Chevron’s board of directors.

For years, UCS has advocated for transparency about direct and indirect lobbying by the fossil fuel

Climate Lobby Day Goes Virtual

Elected officials in six states heard directly from UCS supporters this spring by telephone. Twenty advocates—including business owners, scientists, professors, and a student activist—participated in our annual legislative day, coordinated by UCS staff members who pivoted from planning in-person visits to setting up virtual connections because of the pandemic. This year’s theme: rebuilding our economy by investing in clean energy. Participants talked to their elected officials about the climate impacts affecting their communities, making the

case for federal funding to advance clean energy and other pro-climate investments and to help keep the clean energy industry afloat during the pandemic.

In advance of the calls, UCS held online trainings to prepare participants, and an online workshop about the implications COVID-19 could have on advocacy. Participants were encouraged to advocate not only for clean energy, but also for issues relevant to their own communities and areas of expertise.

“UCS did a great job prepping us and making sure to support us with background on the issues most important to us,” says UCS Science Network member Christine Richardson, who spoke with her representative, Sean Casten of Illinois. On their call, she says, “We discussed the loss of clean energy jobs related to COVID-19, and the need to extend clean energy tax credits.”

Richardson, a director of research, development, and engineering in sensor technology, says UCS legislative days—in-person or on the phone—are among her favorite days of the year. “It allows me to feel like my expertise is taken into consideration and I’m contributing to our legislative process,” she says. “It’s a great opportunity to understand and see the inner workings of our government.”

Millions at Risk from Flooding at Superfund Sites



Hurricane Harvey inundated the Highlands Acid Pit in Texas, potentially exposing nearby communities to hazardous chemicals from the oil and gas refinery waste stored there.

In the United States, a Superfund site is a location designated by the EPA to be contaminated with some of the most hazardous chemicals to human health. There are thousands of Superfund sites located throughout the country; about 1,300 are within 10 miles of the coastlines of the Atlantic Ocean and Gulf of Mexico and could be susceptible to current and future extreme flooding, which will be exacerbated by climate change. Extreme coastal flooding of these sites would present significant health risks to communities located near Superfund facilities, most of which are communities of color and low-income communities. Unfortunately, an executive order that aimed to address such health risks by calling for updated infrastructure to make Superfund sites more resilient to extreme floods was rescinded by the Trump

administration in 2017—less than two weeks before Hurricane Harvey hit the Gulf Coast and flooded numerous Superfund sites.

With the understanding that the federal government would no longer prioritize such work, UCS Research Scientist Jacob Carter created

an analysis that projects the potential risk of extreme coastal flooding of Superfund sites, and identifies communities nearby that could be affected by such a disaster. This analysis confirms that thousands of these sites could be at risk of extreme coastal flooding within the next 20 years, even under the lowest rates of sea level rise; this could disproportionately affect the health of thousands of low-income households and millions of people of color living nearby. These sites are disasters waiting to happen; the EPA must make Superfund sites more resilient now. Find more on this work at www.ucsusa.org/resources/toxic-relationship.

UCS Opposes Unqualified Nominee



Gretchen Goldman (top row, second from left), research director with the Center for Science and Democracy at UCS, participated in a congressional briefing in June opposing the nomination of Nancy Beck to lead the Consumer Product Safety Commission. Participants outlined the many ways in which Beck's fringe scientific views and alarming record on public health make her a dangerous choice to lead an agency charged with keeping the products in our homes safe. Senators Tom Udall (D-NM) and Richard Blumenthal (D-CT), bottom left and center, hosted the briefing and also oppose Beck's nomination. Learn more at <http://act.ucsusa.org/NotNancyBeck>.

ENSURING SAFE

No one should have to choose between protecting their health and participating in democracy.

BY ELLIOTT NEGIN

This spring, US voters were provided a cautionary tale for the November general election. After Wisconsin's Supreme Court prevented Governor Tony Evers from postponing the state's presidential primary because of the coronavirus pandemic, mass cancellations by poll workers forced local election officials to close a majority of the state's polling places. Voters then waited for hours to cast in-person ballots, and at least 67 people contracted COVID-19 during the process.

Nearly 1 million Wisconsinites voted by mail, which amounted to 60 percent of the vote, but that didn't go smoothly, either. Election officials failed to issue mail-in ballots to nearly 10,000 residents who requested them, and threw out ballots because of confusion over frequently changing rules. The record-breaking number of absentee ballots overwhelmed local officials and the US Postal Service, which located some 1,600 mail-in ballots in Chicago a day after the election.

At least partly in response to the Wisconsin primary fiasco, nearly 30 states changed rules or practices to better accommodate voters. More than 168 million of the country's nearly 198 million registered voters are now eligible to vote by mail.

That does not mean state election commissions will be able to provide enough polling stations, adequately protect poll workers, or disseminate and handle the influx of absentee ballots. Indeed, most of the primaries that took place in early June were plagued with logistical snafus. Nor does it mean that historically marginalized communities will have equal access to the polls. All too often, state authorities have disenfranchised low-income communities and communities of color via gerrymandering, voter suppression, and other means, and the resulting lack of political power makes it more difficult for members of these communities to keep their families healthy and safe.

A ELECTION



Social distancing measures are put in place at a Kentucky convention center for its presidential primary in June. Kentucky closed 95 percent of its polling locations in advance of the primary; this location was the only one available for more than 750,000 eligible voters.



Wisconsinite Jennifer Taff sums up the state's disastrous presidential primary, in which thousands waited in long lines to vote after attempts to postpone the primary were rejected and thousands of absentee ballots were not mailed out. At least 67 people contracted COVID-19 during the process.

To address this pervasive electoral system bias, the Union of Concerned Scientists launched the Science for a Healthy Democracy campaign last fall in partnership with national organizations and local groups in three states: Arizona, Michigan, and North Carolina. Led on the UCS side by a team of political scientists and organizers with the Center for Science and Democracy, this joint effort has built a pressure campaign on Congress and state legislatures to expand access to registration and early, in-person, and absentee voting options in the primaries and the general election in November, and provide additional funding for these efforts.

A HISTORY OF RESTRICTING VOTING RIGHTS

State electoral commissions were failing underrepresented communities well before the coronavirus pandemic turned everything upside down.

The practice of gerrymandering worsened following the 2010 federal census, effectively disenfranchising millions of registered voters by creating even more biased electoral districts. Then the US Supreme Court ruled in 2013 that a key Voting Rights Act provision was unconstitutional. States with a history of discrimination that previously had to obtain the Justice Department's permission before making changes to their election laws were now free to tighten voting restrictions and redraw district maps without federal approval. At least nine of the 15 states cited in the 1965 law wasted no time adopting new rules that discouraged voting. Since the Supreme Court decision, more than 1,600 polling places have been shuttered across the country.

During his 2016 campaign, Donald Trump repeatedly attacked the integrity of the electoral system, refusing to say whether he would abide by the official results. After he won, he falsely claimed that millions of people had voted illegally. Now that the coronavirus pandemic has prompted states to

consider providing more opportunities for absentee voting, President Trump has repeatedly alleged that mail-in voting is "substantially fraudulent."

UCS pushed back with the facts. In mid-April, we issued a joint report with the UCLA Voting Rights Project and the University of New Mexico's Center for Social Policy titled *Debunking the Myth of Voter Fraud in Mail Ballots*, which did just that.

"We found no factual basis for the claim that voting by mail results in more voter fraud," says report coauthor Michael Latner, a professor at California Polytechnic State University and the first electoral system science fellow at UCS. "The president and other vote-by-mail naysayers are relying on fear and naked partisanship to discourage a safer option for precinct voting during the pandemic even though there is no evidence of any partisan advantage from absentee voting."

PARTNERS BIG AND SMALL WORKING WITH ONE PURPOSE

UCS has joined with New York University's Brennan Center for Justice, the Center for American Progress, and the Declaration for American Democracy—a coalition of more than 160 environmental, faith, labor, women's, and racial justice groups—to press for voting reforms in Congress and state legislatures (see box). Funding for these reforms is a major concern. The Brennan Center for Justice estimates the pandemic-associated costs of holding the 2020 primaries and general election at \$4 billion. However, as part of its \$2.2 trillion pandemic relief package in late March, Congress provided states only \$400 million for election purposes. UCS and our partners have asked for another \$3.5 billion.

The three states at the center of our Science for a Healthy Democracy campaign—Arizona, Michigan, and North Carolina—along with Florida, Pennsylvania, and Wisconsin

will most likely decide the outcome of November's presidential contest. These six swing states, as well as 23 other states and the District of Columbia, have laws granting voters the right to request an absentee ballot without an excuse, but Arizona, where 79 percent voted by mail in 2018, is the only swing state prepared to handle such a high percentage. In Michigan, 24 percent voted by mail that year, while only 3 percent of North Carolina voters did.

There is plenty of room for improvement. A UCS analysis shows that facilitating automatic and same-day registration would expand voter participation. Likewise, establishing voting centers in rural areas and on Indigenous land, where residents can register, receive, and submit ballots at least two weeks prior to an election day, would go a long way toward protecting voters' health. To avoid lines and potential infections, state election commissions should place drop-off boxes and early voting centers in communities with a history of lower vote-by-mail turnout.

Michigan voters approved a constitutional amendment in 2018 allowing no-excuse voting by mail. Although the form is available online, Michigan's secretary of state sent applications for absentee ballots for the August primary and November general election to the state's 7.7 million registered voters in May. UCS and partner organizations within Michigan have called on the state election commission to go further by expanding the number of early voting centers, ensuring that voters can track their ballots the same way they can track postal packages, and requiring all counties to notify voters of

any problems with their ballots and to allow time for correction, a process known as ballot "curing."

In North Carolina, UCS is collaborating with local partners to prod state officials to expand voting access for all residents. This March, North Carolina joined 38 other states and the District of Columbia in implementing online voter registration,

We found no factual basis for the claim that voting by mail results in more voter fraud.

but the state legislature still has a lot to do, including relaxing absentee ballot signature witness requirements, extending the mail-in ballot receipt deadline, offering voters the opportunity to fix signature discrepancies, and providing prepaid postage on all absentee ballots.

Scaling up our election infrastructure state by state, and educating the public about such changes, will require a massive influx of resources for state and local agencies, says Latner.

"Congress needs to take action now and pass the next phase of COVID-19 relief, currently under consideration, while there is still time," he says. "And during this time of national crisis, we all need to reconsider the capacity of our political system to achieve political equality for all." (C)

WHICH REFORMS ALLOW FOR MAXIMUM VOTER PARTICIPATION?

There is significant scientific research that can guide the immediate steps needed to make sure all US states have provisions in place to protect the integrity of our democracy and allow everyone to vote safely. With our partners, UCS is advocating that states adopt the following measures:

- **EXPAND VOTE-BY-MAIL OPTIONS**, including no-excuse absentee voting, so states can offer every registered voter the ability to vote by mail if they choose to do so;
- **EXTEND IN-PERSON EARLY VOTING** to reduce long lines and ensure all voters have multiple weeks to cast their ballots;
- **ENSURE SAFE, ACCESSIBLE POLLING PLACES**, especially for voters without easy access to mail-in voting;
- **EXPAND ONLINE AND SAME-DAY VOTER REGISTRATION** to all voters; and
- **EDUCATE VOTERS** about the available options this November.



More than half of all states offer mail-in ballots, and five—Colorado, Hawaii, Oregon, Utah, and Washington—conduct elections entirely by mail.

When Climate Change Compounds a Pandemic's Risks

A UCS ROUNDTABLE

What happens when a region facing a pandemic also experiences extreme weather caused by climate change? UCS scientists and analysts are studying how climate impacts threaten to compound the risks posed by COVID-19—and they are sounding the alarm. What follows is a lightly edited transcript of a recent team discussion.

As the United States contends with COVID-19, what climate impacts should we be most concerned about?



CARLY PHILLIPS: From my perspective, a major issue is the absence of preparation for specific disasters, which could make them much worse once they occur. A good example is

the need for forest management and firefighter training for wildfire seasons.



KRISTINA DAHL: I think about hurricane season and people having to evacuate. Last year, for example, at least 1 million people were under evacuation orders as Hurricane Dorian approached

the Southeast. Imagine 1 million people needing to be on the move right now.



ADRIENNE HOLLIS: And imagine that not everyone can evacuate. They could be home-bound, or without transportation, money, insurance, or food.

KRISTINA DAHL: Absolutely. People sometimes don't evacuate because doing so is expensive.

ADRIENNE HOLLIS: We should be worried about how climate impacts are going to affect guidelines in place for COVID-19, such as social distancing. I'm thinking about my mom, who's immunocompromised and needs regular medication. What happens if someone like her has to evacuate? How will they be able to stay safe and socially distanced?

KRISTINA DAHL: Another of the biggest intersections between COVID-19 and climate is with extreme heat. People want to be able to cool down in shared air-conditioned places such as libraries and movie theaters. But we can't safely be in those places right now, so people are stuck at home. That means running air conditioning more (for those who have it) and footing the bill for higher home energy costs.

ADRIENNE HOLLIS: Many people have lost their jobs because of COVID-19. They cannot pay their utility bills—they can barely pay the rent. If they were selectively using air conditioning before, they really will not use it now.

Are there "hot spots" in the United States that face an especially dangerous compound threat?



ASTRID CALDAS: Anywhere hurricane-prone, where we've seen climate change lead to more intense storms, such as Florida, Louisiana, and Texas. Those states are also experiencing

alarming growth in new COVID cases.

KRISTINA DAHL: I'd also add California. With the wildfire and heat seasons, and a concentration of Hispanic and Latino

ROUNDTABLE PARTICIPANTS

Astrid Caldas, Kristina Dahl, and Rachel Licker are senior climate scientists at UCS.

Kate Cell is a climate campaign manager.

Juan Declet-Barreto is a climate vulnerability social scientist.

Adrienne Hollis is a senior climate justice and health scientist.

Carly Phillips is the Kendall Fellow for Protecting Carbon in Alaska's Boreal Forests.

Follow UCS work on COVID-19 and its intersection with climate change and other issues at <http://act.ucsusa.org/coronavirus>.

Our team has become a go-to source for looking at how the next few months might unfold, in terms of both COVID-19 and climate-related events.

workers working in physically demanding agriculture jobs outdoors, I'm keeping an eye on how heat stress and wildfire smoke exposure could affect the severity of COVID-19 infections for these already vulnerable workers.



JUAN DECLET-BARRETO: Flooding isn't only a coastal problem. There are flood alerts in areas with many COVID-19 cases, such as in Illinois, Indiana, Minnesota, and Ohio.



job losses, and/or income inequalities that fall across racial and ethnic lines and create a dearth of resources to deal with climate impacts and COVID-19. You could also think of it from the perspective of the places that are not taking the science seriously enough and that reopened too soon or chaotically.

How can these compounded risks be addressed with the best possible outcomes for people's health and safety?

ADRIENNE HOLLIS: State and local leaders must make safe evacuation

plans, identify safe locations with social distancing considerations, and identify the most vulnerable people who'll need extra help. Public policies that allow people to address current and future issues with infrastructure and energy bills are also important.

KRISTINA DAHL: I'd note that right now, food insecurity is a huge issue and would become an even larger one during a natural disaster.

What is UCS doing in addition to calling attention to these risks?



hoping that such moratoria will at least enable people to establish cool rooms in their houses.

KRISTINA DAHL: It's teamwork: we scientists carry out rapid-response analyses when there are timely concerns. The UCS campaign team gets the information out to the world. And then our members take action. For example, we emailed our supporters asking them to write to their governors and demand those statewide moratoria on utility shutoffs. And 70 percent of the people who opened the email alert wrote letters—which is an amazing number on an issue like this.

KATE CELL: I would love our members to know that this team is doing fast, innovative, crucially useful science in this time. And that we're working hard to push it out to governors, mayors, emergency managers, and other decisionmakers.

CARLY PHILLIPS: I've been inspired by the collaboration among different types of scientists right now. One example is disease modelers sharing their data with us, so we can use it for our climate analyses. I think that has allowed scientists to use their expertise in a way that's most relevant for the current situation.

KRISTINA DAHL: In the early days of the pandemic in the United States, some of my colleagues felt a reluctance to raise the issue of climate change. Done incorrectly, it could be seen as opportunistic—or actually *be* opportunistic. One of the things I'm particularly proud of with this group is that we've made it very clear that keeping people safe and healthy is the country's highest priority, and, of course, our focus needs to remain on COVID-19. But we've also become a go-to source for reporters looking at how the next few months might unfold, in terms of both COVID-19 and climate-related events.

KATE CELL: I think that what we're doing now, what we're advocating for that can make us more resilient to pandemics—better community and public health, better information and communication, more social cohesion, better housing, a stronger social safety net—these measures will also help us to better weather the shocks of climate change that lie ahead. {C}

• pandemic • frontline workers • mismanagement • democracy • COVID-19 •
• ease • contact-tracing • essential workers • PPE • corporate profits • protec
• guards • communities • rollbacks • regulations • censorship • watchdogs • v
• workers • mismanagement • democracy • COVID-19 • government
• terms • dis-
• tact-tracing
• ers • PPE •
• protective
• conditions • voting • evidence • rollbacks • regulations • cen-
• ed science • PPE
• COVID-19 • gov-
• tems • disease •
• its • protective
• cines • safeguards • communities • rollbacks • regulations • censorship • wa
• ence • pandemic • frontline
• democracy • COVID-19 •
• cal distancing • health-care
• tact-tracing • essential
• watchdogs • whistleblowers • information • restricted science • pandemic
• health-care systems • watchdogs • disease • contact-tracing • essential wor
• agement • democracy • COVID-19 • government tracing • essential worker
• evidence • vaccines • safeguards • communities • rollbacks • regulations • c
• ence • pandemic • frontline workers • mismanagement • democracy • COV
• disease • contact-tracing • essential workers • PPE • information • restric
• cy • COVID-19 • government response • physical distancing • health-care sy
• profits • pandemic • frontline workers • mismanagement • democracy • CO
• tems • disease • contact-tracing • essential workers • PPE • corporate profi
• cines • safeguards • communities • rollbacks • regulations • censorship • wa
• frontline workers • mismanagement • democracy • COVID-19 • governm
• tact-tracing • essential workers • PPE • corporate profits • protective meas
• censorship • watchdogs • whistleblowers • information • restricted science
• COVID-19 • government response • physical distancing • health-care system
• its • protective measures • unsafe conditions • voting • evidence • vaccines
• watchdogs • whistleblowers • information • restricted science • pandemic

We Need To Build Better

Science

A World.

As the US response to the coronavirus pandemic makes clear, sidelining science can have lethal consequences. Here's how we're fighting back.

BY ANDREW A. ROSENBERG AND SETH SHULMAN

We have been experiencing a period of tragedy and upheaval unlike anything most of us have ever lived through. Our hearts go out to all those among our UCS members and supporters who have lost loved ones in the pandemic. We are grateful for the bravery of our frontline workers and inspired by the size and scale of protests calling for racial justice that is long overdue. But we are deeply saddened by the loss of life and livelihoods. And we are wearied of being physically separated from friends, relatives, and colleagues.

We're also infuriated by the colossal mismanagement and politicization of the US federal response to the pandemic. The United States can and must do better. We recognize that we need to work together to channel our outrage into action to rescue our constitutional democracy from the ongoing threats posed by the current administration.

Science has an important role to play in building a better country, and a better world. But science, as it has been practiced,

has frequently failed to live up to that ideal. We at the Union of Concerned Scientists are currently considering the many ways in our own work we have contributed, tacitly or otherwise, to the perpetuation of White supremacist attitudes that have thwarted progress on racial equity. This is vital and urgent work because a more enlightened kind of science is an essential component of the path to a more just and equitable world.

The pandemic continues to have disproportionate economic and health impacts on the most vulnerable in our society—especially communities of color, those at the lower end of the economic spectrum, and those who work in low-wage frontline service industries. Our response must work to protect all of us, including ensuring benefits for low-income communities and communities of color that are too often neglected. UCS is working with grassroots partners to fight for environmental and social justice as we engage in the debate over how best to rebuild the US economy (see *Ideas in Action*, p. 18).



Flouting scientific guidelines that much of the US public has embraced, President Trump has repeatedly refused to wear a mask, as during a tour of a mask-making factory in Pennsylvania (above right). From COVID-19 to climate change, the administration's disregard for science has put millions of lives at risk.

The stark truth is that a large portion of the deaths in this country could have been prevented by a swifter and smarter government response to this pandemic. There is no escaping the unforgivable fact that the United States has only about 4 percent of the world's population but roughly a quarter of the world's COVID-19 deaths. Or that nations such as Denmark, Germany, South Korea, and others that quickly instituted and enforced science-based protective measures (such as wearing masks and requiring physical distancing and widespread testing) have kept their tolls of disease and death to a small fraction of those in the United States.

The stark truth is that the pandemic has exposed the brutality of the US economic, labor, and health-care systems, hitting low-income communities and communities of color in unacceptably disproportionate numbers. In our system, people are forced to work when sick or lose vital income, to work in unsafe conditions while corporate profits soar, and to avoid doctors or hospitals for fear of potentially ruinous bills. In just one potent example reported by our colleague Derrick Jackson, the CDC found that while the state of Georgia is 61 percent White, 83 percent of patients hospitalized there with COVID-19 as of May were Black (see p. 22 for more information).

The stark truth is that good governance is not a desirable luxury in a democracy but a necessity on which people's lives depend. And that our democracy is not a given; to function it must be an open and responsive system. Making politics and politicians responsive to the public interest—rather than special interests—requires our vigilance and active participation.

When our leaders are allowed to ignore evidence, they can make and justify whatever decisions benefit themselves and their circles. And ignoring the evidence makes inherently harmful actions more likely, such as continued exploitation of fossil fuels,

reopening an economy in the throes of a pandemic, and a police force that targets Black people with violence in even minor incidents or for no reason at all. The evidence tells us these policies are unjustified as well as amoral.

Of course, UCS has been championing the need for science-based decisionmaking throughout the organization's 50 years in existence. Cleaner air and water, accurate weather forecasts, safer products, and vaccines and treatments for new diseases and other health threats are all in the public interest. It's easy in normal times to forget that legions of dedicated, independent scientists both inside and outside the government work every day to protect our health and safety by offering us reliable information on which to base and enact policies that truly meet society's needs.

WHAT UCS IS DOING

With your help, UCS is advocating for science-based decisions, both in the fight against the coronavirus and in the federal government more generally. Led by our Center for Science and Democracy team, the organization has fought to ensure that public health experts and government scientists involved in the US pandemic response aren't muzzled, censored, or sidelined—and we have exposed examples when this has happened.

We've also redoubled our efforts as a watchdog, fighting to prevent the Trump administration from rolling back regulatory protections to benefit a few in the petrochemical industry and other big industries at the expense of their workers' safety and the public's health. We're actively working to protect public health safeguards and the federal scientific enterprise on which we all depend, even taking the Trump administration to court when necessary. When the administration dismissed the respected scientists on a key Environmental Protection Agency advisory panel, UCS empaneled the scientists ourselves and published their

When our leaders are allowed to ignore evidence, they can make and justify whatever decisions benefit themselves and their circles.

findings. And when the administration refused to hold hearings on a proposed rule that would restrict the science that can be used to make policy, UCS held virtual hearings, with testimony from 39 people including former EPA Administrator William Reilly and New York Congressman Paul Tonko.

UCS also played a key role in shaping the Scientific Integrity Act that passed in the US House of Representatives this spring as part of the government's stimulus package. The bill includes a suite of important provisions to protect scientists in government and ensure that their findings are not suppressed or manipulated (see box for details).

LOOKING AHEAD

We've achieved these successes in this unprecedented period thanks to the extraordinary dedication of UCS staff, members, and supporters. But we know our work is far from done. We know we still need to undo the many misguided actions of the Trump administration, including the "restricted science" rule and the ongoing efforts to undermine the government's use of cost-benefit analysis. We need to reinstate fuel economy standards that were substantially reducing carbon emissions while saving billions of dollars at the pump, and we need to rejoin the vital international

efforts to combat climate change by honoring our previous commitment to the Paris climate agreement.

Equally important, we need to join together to demand a declaration at the highest levels of government that its work will be guided by evidence, in service of the public interest. Scientists in government need to hear this. Lobbyists for industry need to hear this. The public needs to hear it. And we all need to know it is not just rhetoric, but a real commitment to redress past mistakes and repair a system that has been badly damaged in recent years.

And we mustn't stop there.

Scientific evidence overwhelmingly indicates that the disruptions to our way of life caused by COVID-19 can and must be seen as a dress rehearsal for the similarly catastrophic disruptions we can expect from climate change—if we don't dramatically reduce our carbon emissions. As with the pandemic, climate change demands a massive mobilization of resources that only the federal government can bring to bear, working in tandem with governments worldwide, and aimed at transitioning all of us to an economy built on clean energy and resilience. In each case, widespread public access to high-quality data, transparency, and the unfettered ability

(continued on p. 21)

SCIENTIFIC INTEGRITY ACT PASSES THE HOUSE

In an important victory for UCS this spring, the US House of Representatives passed the Scientific Integrity Act as part of its COVID-19 stimulus legislation. Members of both parties were among the act's 232 cosponsors, and it was endorsed by a bipartisan task force led by New York University's Brennan Center for Justice, along with a host of good-government groups, environmental organizations, public health advocates, and unions.

The legislation prohibits any government employee from manipulating or misrepresenting scientific findings. It helps ensure the accuracy of government communication of science by giving scientists final review over materials that rely primarily on their research. It also gives scientists

the right to correct official materials that misrepresent their work—a provision that makes it less likely for federal agencies to either intentionally or inadvertently put out inaccurate information.

The act also helps ensure that government scientists can carry out their research and share it with the public without fear of political pressure or retaliation, by stipulating that they are free to talk about their research with reporters, in scientific journals, at scientific conferences, and directly to the public. By freeing government scientists from the threat of censorship, intimidation, and manipulation of their results, this legislation will strengthen the federal government's ability to serve the public interest.

Emerging Stronger from the COVID-19 Crisis

By Rachel Cleetus



Renewable energy will play a critical role in an equitable, clean, and resilient economy. Investing in clean energy technology and job training will enable communities to recover from the COVID-19 pandemic, and potentially emerge even stronger thanks to the health and economic benefits of clean energy.

The COVID-19 pandemic has fundamentally changed the way we live in the United States, triggered an unprecedented economic crisis with unemployment spiking to its highest level since the Great Depression, and revealed the deep structural flaw of racism in our society. Much uncertainty remains about how and when we will be able to overcome the novel coronavirus, but one thing is clear: our efforts to recover our health and rebuild our economy *fairly* cannot rely on the same structures that have failed us in these crises. We must call on our can-do spirit of entrepreneurship and innovation, our sense of empathy and shared sacrifice,

and our democratic principles.

Even before the pandemic, working people were struggling to make ends meet, as the benefits of our strong economy were disproportionately distributed among the wealthy. Now, the pandemic has hit these communities hardest in terms of deaths and job losses, highlighting and exacerbating the consequences of long-standing structural and environmental racism (see Final Analysis, p. 22)—a parallel it shares with another long-term crisis: climate change.

We cannot return to business-as-usual policies and systems that reinforce current socioeconomic inequities and

fossil fuel dependence, and that threaten our health and economic well-being, now and in the future. It's time to build a clean, climate-resilient economy in a just and equitable way.

A CLEAN, CLIMATE-RESILIENT, EQUITABLE RECOVERY

Right now, policymakers must focus on public health challenges, and the need to provide workers and businesses immediate relief from the consequences of the economic shutdown. Among those priorities is the need for congressional action to help the clean energy industry, which had lost nearly 620,000 jobs as of mid-June.

Protecting public health must remain a priority for the foreseeable future; we cannot have a healthy economy without healthy people.

Protecting public health must also remain a priority for the foreseeable future; we cannot have a healthy economy without healthy people. As we turn to economic recovery, though, we need to jump-start the economy by channeling investments into productive, job-creating opportunities, such as building infrastructure. The federal government should commit to this effort via a national infrastructure bank, sustained at a level commensurate with the demands of the climate crisis. The details of these investments, and what types of infrastructure are prioritized, are important. We need equitable investments in clean energy and climate resilience to protect our economy from climate impacts for the long term, and to make sure the benefits of such investments flow to all communities.

For a clean recovery, the federal government must implement robust policies and dramatically ramp up its investments to boost renewable energy, energy efficiency, and the electrification of heating and cooling in buildings, industrial processes, and many modes of transportation—which would cut heat-trapping emissions, generate jobs, and significantly improve public health.

For a climate-resilient recovery, federal, state, and local decisionmakers must make investments that will help prepare communities for, and protect them from, the climate impacts we know are worsening, instead of just picking up the pieces over and over again after disasters.

For a just and equitable recovery, low-income communities; Black, Latino,

and other communities of color; and Indigenous communities—which have been disproportionately burdened by COVID-19, the resulting economic crisis, and the ongoing impacts of our country's dependence on fossil fuels—must be guaranteed direct access to the health and economic benefits of a transition to clean energy. And we must treat fossil fuel workers and their communities fairly by protecting retiree pensions and health benefits, providing retraining and job opportunities, and investing in diversifying local economies.

CUTTING EMISSIONS, GROWING THE ECONOMY

Data show that the economic shutdown has contributed to lower levels of pollution and carbon emissions. But these are temporary reductions at best, and they have come at enormous cost to working people and people who live in poverty around the world. Only through a rapid and intentional shift to clean energy can we achieve meaningful long-term cuts in heat-trapping emissions, clean air and water, and a thriving economy all at the same time.

To do that, we need a robust suite of policies at the federal, state, and local levels, together with international cooperation on climate action. We need to build the kind of economy that will not only help us through our current crises, but also set us on a path to a healthier, more just, more prosperous, and climate-ready future. {C}

Rachel Cleetus is policy director in the UCS Climate and Energy Program.

Read more from Rachel in our blog, The Equation, at <http://blog.ucsusa.org>.

Rachel Cleetus: Why I Work for UCS



In the nearly 14 years I've been with the Union of Concerned Scientists, it's hard to imagine a time when our work was more urgently needed and vital. Our team has been working with policymakers, the media, partner organizations, and the public to try to highlight the compound risks posed by climate change, COVID-19, and structural and environmental racism. We're advocating for urgent congressional action so the clean energy industry can continue to flourish, providing jobs, cutting heat-trapping emissions, and improving public health.

The mounting costs of climate change and its harms to people are simply untenable, especially for low-income communities and communities of color. My job is to advocate for intersectional solutions to these challenges, such as climate-smart investments in preparedness and resilience to help protect communities facing a bad hurricane or wildfire season, and robust EPA regulations to limit harmful pollution.

As an economist, I know the investment choices we make today can either help propel us toward a clean energy economy or lock us further into fossil fuel dependence and imperil our climate goals. I am glad to work at UCS to help advance just, equitable, and ambitious solutions. Our children and grandchildren deserve our best efforts to limit climate change so they can have a safe, prosperous future.

Green Business Is Good Business for David Deutscher



As president of the California-based Deutscher Properties Corporation, a commercial real estate company, and as a father and grandfather who cares about the planet, David Deutscher is committed to sustainable business. After remodeling a house in 2004 with solar panels and energy-efficient insulation, he saw the economic advantages of renewable energy. “Within six years, I’d recovered

my investment on that house,” he said. “Then I started wondering how this would work with the office buildings we manage.”

Deutscher crunched the numbers—and realized quickly that it wouldn’t work.

“The buildings were inefficient. They had single-pane glass windows, the insulation was poor, they didn’t have cool [light-reflective] roofing, the air conditioning wasn’t working efficiently. There were just so many things that needed doing first,” he says.

Another person might have given up then. But Deutscher was motivated by long-term thinking.

BUILDING FOR THE FUTURE

“There’s the seven-generation concept that whatever we do today should be done with an understanding of the impact seven generations from now,” Deutscher says. “I have a great life. It’s about my grandchildren also having a great life.”

With them in mind, Deutscher spent the next decade remodeling his buildings to make solar power feasible.

His investments paid dividends. “Over a 15-year period,” he says, “I noticed that even though my utility raised its rates each year, my bills never increased.”

Deutscher estimates he’ll have recouped the costs of his solar installation in 11 years if utility rates stay flat, or in eight to nine years if rates increase annually—an impressive rate of return, he says. He has cut energy use in his buildings by 40 percent, and three of his four solar-powered buildings produce more energy than they consume.

But, he points out, he’s just one person with the means and motivation to make these changes happen. Energy efficiency and solar power should be accessible to all, he says. That is why he supports the Union of Concerned Scientists, a philanthropic tradition started by his mother in 1978.

“UCS has done a lot to encourage legislators on issues like electric cars and sustainable energy,” he says. “You are leaders on this subject. And supporting science is critical.”

A STAND FOR SCIENCE. INCOME FOR LIFE.

Charitable gift annuities offer significant tax benefits and reliable income.

By establishing a charitable gift annuity with UCS, you and/or a loved one can receive significant tax benefits and income for life. Payment rates are based on your age (minimum age 60) and can be as high as 8.6 percent. Gift annuities can also help reduce capital gains taxes on gifts of stock.

In honor of each new charitable gift annuity, a \$2,500 immediate contribution will be made by a generous, anonymous donor.

CONTACT US FOR MORE INFORMATION

Please contact the Planned Giving Team at (617) 301-8095 or email plannedgiving@ucsusa.org.



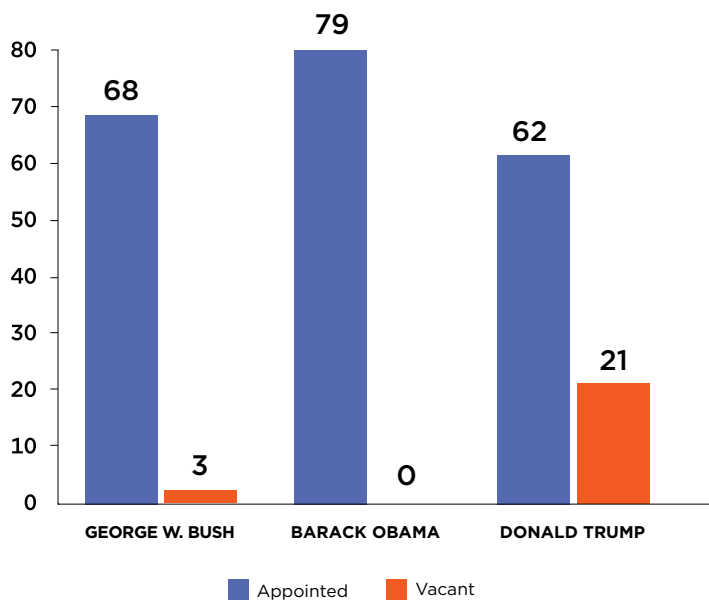
We Need Science to Build a Better World

(continued from p.17)

of scientists to speak directly to the public are paramount for our protection. So is the need to make sure that our actions are just and inclusive, affording protections to low-income communities and communities of color particularly at risk.

Finally, one of the biggest challenges we face is the fact that the Trump administration has severely compromised one of the United States' greatest assets: its scientific capacity.

VACANCIES IN SCIENTIFIC LEADERSHIP POSITIONS DURING THREE ADMINISTRATIONS



During their tenures in office, Presidents Barack Obama and George W. Bush filled nearly every scientific leadership position in their administrations. President Trump has thus far failed to appoint anyone to a quarter of these positions.

Government agencies have been systematically hollowed out. Vast storehouses of institutional knowledge have been lost, as many career public servants have retired or otherwise left the government.

Rebuilding this capacity presents a vital and arduous challenge, but we are encouraged by the enormous pool of

talent we see in our up-and-coming generations. Public service has long been seen as an honorable way to work for at least a part of one's career as a scientist or technical expert, and the government is currently starved for young professional talent. We need to start reinvigorating interest in public service and incentivizing young people's involvement, especially those from communities of color. That will entail welcoming fresh ideas, and clearing a path so they may lead.

Throughout this historic moment of disease, disruption, protest, and hardship, our mission and values remain clear and unwavering: UCS stands with people and the need to protect everyone's health and safety. We reject discriminatory rhetoric and actions that target us by race,

We need to start reinvigorating interest in public service and incentivizing young people's involvement, especially those from communities of color. That will entail welcoming fresh ideas, and clearing a path so they may lead.

religion, gender, geography, or any other factor. We remain committed to swiftly building a more equitable, low-carbon future to avoid potentially catastrophic disruptions from climate change. And, as the essential linchpin to all of these efforts, we champion science-based decisionmaking for developing successful solutions to today's pressing problems and the ones that lie ahead. {C}

Andrew A. Rosenberg is director of the Center for Science and Democracy at UCS. **Seth Shulman** is UCS editorial director.

US Leadership Turned Its Back on Black, Latino Workers

By Derrick Z. Jackson



This spring, as COVID-19 deaths in this country exceeded 100,000, the federal government and many states reopened for business as usual, despite scientific evidence indicating that this would almost

certainly mean more disease and death.

Those predictions are being tragically realized. Many states have rolled back their reopenings, as the *New York Times* on July 14 reported virus cases increasing in 38 states plus Washington, DC, Puerto Rico, and the US Virgin Islands. Updated models posted by the Centers for Disease Control and Prevention have us surpassing 200,000 US deaths by November 1.

The truth of why the nation invites the continuance of this tragedy lies in its racial arrogance. The reopenings occurred over the objections of civil rights leaders and mayors of cities where people of color were disproportionately devastated in the first wave of COVID-19. They were overruled by the imperative of companies to get workers back to work, no matter how unsafe the conditions, and the impatience of White people not yet hit hard by COVID-19 to seek what appeared to be an unalienable right to hit the beach or the bar, or watch the launch of SpaceX, without masks or social distancing. Symbolic of this racial arrogance was the refusal to prioritize protective face coverings by President Trump and governors who aggressively reopened their states. Instead of being in solidarity with hard-hit populations, they maintained a social distance from the pandemic all too familiar to people of color.

This reinforcement of old-school social distancing along racial lines is another example of how COVID-19, and our continuing response to it, have exposed every racial disparity in the



State reopenings largely ignored the health concerns of essential workers, who are often people of color and who often lack adequate protective equipment to minimize their exposure to the virus.

United States. Decades of structural racism in housing, education, employment, and health care put Black, Latino, and Indigenous people in the crosshairs of the virus. Many families were sitting ducks, living in dense developments and multigenerational homes, working in low-paying “essential” service jobs, and/or suffering from conditions like diabetes or hypertension that make them more susceptible to disease.

Death is the final disparity. According to the American Public Media Research Lab, if Black people died at the same rate as White people, there would be 16,000 Black people still alive as of July 8.

When protesters took to the streets to protest the murders of Black people by police officers, newspaper headlines and radio and TV stories speculated that these protests could spread COVID-19.

One scientist estimated that the demonstrations might cause up to 500 deaths. But that pales to the overall spread of the virus fueled by the incompetence of the Trump administration, and states putting money over public health.

We must never forget that the Trump administration disbanded a pandemic advisory panel before the crisis hit, dismissed scientists who warned how the coronavirus might spread, failed to ramp up testing and tracing, hoarded protective equipment, and even enabled lackadaisical data collection on COVID-19 deaths, permitting a quarter of states to avoid reporting death by race. The rush to reopen has quickly become another chapter of this administration closing the door on science, and states sending common sense, compassion, and the common good into lockdown. The opinion of Black, Latino, and Indigenous people about whether hitting the beach would be worth tens of thousands of more deaths was locked out. {C}

Derrick Z. Jackson is a UCS Fellow in climate and energy and the Center for Science and Democracy, and an award-winning journalist. Read more from Derrick in our blog, *The Equation*, at <http://blog.ucsusa.org>.



PUT YOUR VALUES TO WORK FOR FUTURE GENERATIONS

Help build a healthier, safer, and more just world by making a legacy gift to UCS.

LEAVE A GIFT TO UCS

UCS can be named in your will or trust as the beneficiary of a set dollar amount, percentage, or specific assets. You can also leave a gift to UCS through your retirement, life insurance, or other financial account after your lifetime. Please reference our tax ID#: 04-2535767.

JOIN THE KURT GOTTFRIED SOCIETY

If you have already left a gift to UCS in your will or other estate plan, please let us know so that we can thank you; welcome you to the Kurt Gottfried Society, our honorary legacy society; and let you know about a special matching gift opportunity.

CONTACT US

For more information, please contact the Planned Giving Team at (617) 301-8095 or email plannedgiving@ucsusa.org. Or visit ucsusa.org/legacy.

BOOST YOUR IMPACT!

ALL NEW LEGACY COMMITMENTS SHARED WITH UCS WILL GENERATE A \$5,000 GIFT FROM A GENEROUS ANONYMOUS DONOR.

The logo for the Union of Concerned Scientists, featuring a stylized bracket on the left side of the text.



THANK YOU



Health-care professionals,
first responders, essential workers:
Science has your back.
Thank you for having ours.
Stay connected at www.ucsusa.org

@UCSUSA



[www.facebook.com/
unionofconcernedscientists](https://www.facebook.com/unionofconcernedscientists)



@unionofconcernedscientists

