Concerned Scientists

2021 ANNUAL REPORT





WE USE SCIENCE TO DRIVE CHANGE

The Union of Concerned Scientists (UCS) works to put science into action to build a healthier planet, a safer world, and a more equitable society. We are scientists, engineers, economists, activists, and everyday people working together to make change happen.

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A MESSAGE FROM THE PRESIDENT & CHAIR

If you feel as though you've spent 2021 vacillating between hope and fear, progress and regression, celebration and mourning, you are not alone.

The excitement of a new administration was followed by destabilizing attempts to overturn a fair and legal election. The tremendous promise of mass vaccination was undermined by misinformation about vaccines, leading to a surge in infections. Despite growing awareness of injustices, too many systems that prop up the status quo seemed to grind on. We took hit after hit from ever more intense wildfires, storms, floods, and drought, but we also welcomed a renewed focus on slowing climate change-by the White House as well as several states.

All of us at UCS have been working as hard as we can to ensure that science, progress, and justice ultimately prevail. From the smallest successes to the biggest wins this year, your support has been crucial.

With the Biden administration signaling a commitment to scientific integrity from day one, UCS laid out a path for restoring the role of science in federal policymaking. We've pushed for the urgent, ambitious action that is so

clearly needed on climate change—ranging from dramatic cuts in carbon emissions from all sectors of the economy to adaptive measures that will protect outdoor workers from extreme heat.

We've invested in partnerships, networks, and coalitions to build a base for action that will be broad enough to match the scope, scale, and speed of the challenges we face. We've made the urgency of the multiple crises we face clear and certain, and pushed hard-whether by bringing our analyses to community meetings or testifying before Congress-for the science-based solutions we know can address these crises.

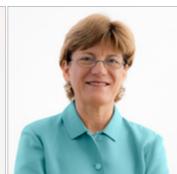
The past year has renewed our sense of hope, while continuing to remind us that we have no time to lose in the race to stem climate catastrophe, protect democracy, and reduce the risk of nuclear weapons. It's also shown us the value of the interdependence that arises from having shared goals. We understand no single organization can create the change we need by working alone, so UCS will continue to rely on your support, and all you do to contribute to our common cause.

THANK YOU.



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PRESIDENT



ANNE R. KAPUSCINSKI



When President Biden took office in January, most of the nation remained on lockdown, millions of people needed to be vaccinated, and millions more were out of work. The previous administration had sidelined science to an unprecedented extent and worsened the growing climate crisis. Thankfully, with the help of scientifically grounded advice from UCS, the new administration has taken positive steps on numerous fronts to undo the damage of the past four years.

NUCLEAR WEAPONS

Before President Biden took office. UCS fought to block a Trump administration proposal to return to explosive nuclear testing despite a nearly 30-year ban. Our analysts explained that the United States doesn't need live testing to prove that nuclear weapons work, and that too many people have already suffered from the effects of such tests. Heeding our call, Congress responded on New Year's Day 2021 by eliminating funds for nuclear test preparations.

UCS then mobilized nearly 900 UCS Science Network members and roughly 10,000 UCS activists to call upon the new administration to "take bold action to fundamentally reform US nuclear weapons policy, reduce nuclear dangers, and reaffirm the pursuit of global nuclear disarmament." This pressure led to a highlevel meeting between White House officials and UCS staff, who offered suggestions on how the administration's official position on nuclear weapons could make the world safer.

CLIMATE CHANGE

UCS engaged 1,500 scientists to sign a letter calling on the United States to set a strong target for reducing its carbon emissions under the Paris climate agreement: at least 50 percent below 2005 levels by 2030. The message was received—in adopting a target of 50 to 52 percent, the White House cited the support of "thousands of scientists," and we are now actively working to shape legislation that can deliver on that commitment.

JENCING DMINISTRATION



SCIENTIFIC INTEGRITY

In the last days of the Trump administration, the Center for Science and Democracy at UCS capped years of behind-the-scenes work by defeating a key anti-science maneuver. The administration had sought to gut public health and safety protections by establishing rules at the Environmental Protection Agency (EPA) and Department of the Interior forcing such protections to be based only on studies whose authors are willing to hand over their raw data-knowing full well this would exclude studies that keep participants' personal details private. UCS fought back, explaining the threat this posed to public health and earning coverage in The Hill, NPR, Politico, Science, and the Washington Post. A judge threw out the EPA's rule and the secretary of the interior

overturned that agency's version.

Just seven days after taking office, President Biden demonstrated his strong support for science by signing a memorandum on scientific integrity and science-based decisionmaking that adopted many recommendations from a 2020 UCS report: creating a scientific integrity task force, establishing a scientific integrity review across agencies, designating chief scientific officers and scientific integrity officers in all science agencies, and ensuring that the membership of scientific advisory committees is both diverse and adequately represents the voice of independent scientists with relevant expertise. What's more, the White House announced that the president's science advisor would be a cabinet-level position, one of our longstanding requests.

UCS made other gains related to scientific advisory committees, winning a court appeal that overturned the EPA's ill-considered ban on scientists who had received government grants from serving on its advisory committees, and reinstating the EPA's Science Advisory Board and Clean Air Scientific Advisory Committee.

SCIENTIFIC EXPERTISE

The fact that several UCS experts were recruited to serve in the Biden administration attests to the respect this organization-and the wellestablished expertise and leadership of our analysts in their fields—has in government circles.

Meanwhile, the UCS Science Network continues to play an important role in bringing independent scientific and technical expertise to bear on public policy. We encourage network members to serve on federal science advisory panels, and they have answered the call-in one notable case, 11 of the 47 members of the EPA's Science Advisory Board are now Science Network members.

COUNTERING MISINFORMATION

UCS has a long history of using rigorous, independent scientific analysis to puncture myths spread by government and industry officials. *In 2021, our scientists carried on that indispensable role.*

CLIMATE ACCOUNTABILITY

UCS research and analysis is playing a central role in the growing movement by dozens of cities, counties, and states to hold fossil fuel companies liable for the climate-related damages their products have caused, and for deceiving the public about it. More than 70 percent of the high-profile lawsuits now under way rely heavily on UCS-led research.

Among the new lawsuits filed in 2021, one brought by the city of Annapolis, Maryland (which is threatened by sea level rise), alleges that more than two dozen fossil fuel companies including Chevron, ExxonMobil, and Royal Dutch Shell intentionally misled their shareholders, policymakers, and the general public about climate science. In making its case, Annapolis cites four UCS reports dating back to 2007.

The past year also included encouraging signs that our accountability

work is making headway in forcing fossil fuel companies to change their business models: a shareholder revolt against ExxonMobil ousted three directors and demanded improved disclosure of the company's climate-related lobbying, Chevron and ConocoPhillips shareholders called for emissions reductions consistent with the Paris climate agreement, and a court in the Netherlands (informed by UCS analysis) ordered Shell to reduce its carbon emissions—the first time ever a company has been required to do so.

HYPERSONIC WEAPONS

The United States is rushing to develop nuclear-armed missiles that the Pentagon, defense contractors, and contractor-funded think tanks claim are faster, more accurate, more maneuverable, and stealthier than traditional intercontinental ballistic missiles (ICBMs).



Late in 2020, UCS authors published a paper in the peer-reviewed journal Science & Global Security that found hypersonic missiles do not live up to the hype. The paper prompted a New York Times front-page story that reportedly raised "a lot of hackles" at the Pentagon.

UCS has recommended that Congress withhold funding from the hypersonic program, which is expected to cost \$15 billion through 2024, unless the Pentagon can demonstrate that these missiles actually strengthen national security.

NUCLEAR POWER

Developers of new types of nuclear reactors that rely on materials other than water for cooling contend that their technologies will be cheaper, safer, and more secure than current reactors. They also maintain that these "advanced" reactors will burn uranium fuel more efficiently, produce less

radioactive waste, reduce the risk of nuclear proliferation, and could be up and running by the end of this decade.

An exhaustive UCS analysis, years in the making, found that these claims do not hold up to scrutiny; in some respects, these reactors would be significantly worse than those in operation today. Moreover, it could take at least 20 years—and billions of dollars in additional costs-to fully develop these reactors and their associated infrastructure if federal regulators require the necessary safety demonstrations. UCS is calling for an independent commission that will only approve projects it deems to be clearly safer and more secure than current reactors, and that have a high likelihood of commercialization.

GERRYMANDERING

In July 2021, Cambridge University Press published *Gerrymandering the* States, coauthored by Michael Latner, a senior fellow with the Center for Science and Democracy at UCS. The book provides the first scientifically rigorous investigation of partisan redistricting at the state level and reveals its destructive consequences, from underrepresentation of voters of color to state legislatures that face no political consequences for ignoring threats to their constituents' health and well-being.

Importantly, it also demonstrates that partisan gerrymandering can be easily measured and understood-in contrast to what the US Supreme Court has disparaged as "sociological gobbledygook." The authors' simple method for calculating bias in gerrymandering will help UCS Science Network members and other UCS supporters hold elected officials and redistricting authorities accountable for ensuring fair representation for all.



PUTTING PEOPLE AT THE CENTER OF CLIMATE SOLUTIONS

After the hottest year—and decade—on record, voters in the 2020 presidential election sent a clear message that the United States must finally take broad, *dramatic action to address* the climate crisis. Even as government officials continued to prioritize battling the pandemic in 2021, the repeating pattern of extreme weather events worsened by climate change—drought, wildfires, *hurricanes, and floods—proved* impossible to ignore.



In another effort to support communities, UCS and several of our environmental justice partners launched a resource-sharing platform called the Science and Community Action Network (SciCAN). The website www.scican.org features a searchable library, a member map, a "find an expert" feature, and a forum where subject-matter experts can learn from and contribute their expertise to grassroots movements, and local activists can make their case even stronger with newfound scientific backing.

This model of teamwork among scientists and activists helped UCS keep climate action on the agenda in 2021 and delivered progress across the country.

WEST COAST

UCS also collaborated with underserved communities on an analysis of climate-related threats to air quality and water supplies in California's San Joaquin Valley. The study, which aims to equip valley residents with climate resilience strategies, was published at the height of California's worst wildfire season on record.

Our trademark combination of science and advocacy proved particularly important in the Golden State when the California Air Resources Board responded to our 2020 analysis of ride-hailing's climate risks by establishing a first-of-its kind restriction on companies including Lyft and

Uber: by 2030, 90 percent of the miles driven by these companies' fleets must produce no carbon emissions. As with previous rules passed by California, this milestone will provide a model for other states.

In the Pacific Northwest. Washington State took a significant step toward reducing its vehicle emissions when it passed a bill establishing a clean fuel standard for the state—a victory that capped seven years of work by UCS. Following the adoption of similar standards in Oregon and California (where UCS also played a key role), this trend builds momentum for clean fuel policies at the federal level.

UCS also called for climate action in Oregon, and as the state struggled with historically high temperatures, its governor signed one of the country's most ambitious clean energy bills-requiring 100 percent of Oregon's electricity to be carbonfree by 2040.

NORTHEAST

UCS helped pass strong climate and clean energy bills in Maine. We successfully pushed for provisions that will provide low-income households, disadvantaged communities, and other underserved markets with low-interest financing for clean energy projects, and that require the state's public utilities commission to incorporate climate impacts and solutions into its decisionmaking while taking issues

The combined impact of these events falls most heavily on Black, Hispanic, Native American, and low-income communities. This devastating collision of social, economic, and environmental injustices, which has always existed but was made more evident by COVID-19, requires multifaceted and equitable solutions. In response, UCS collaborated with community partners and experts to conduct a first-of-its-kind study designed to help decisionmakers see clean energy policies through a social justice lens. A Transformative Climate Action Framework: Putting People at the Center of Our Nation's Clean Energy Transition will guide our strategy and analysis going forward.



of equity into account.

After more than two years of UCS work with community leaders and state lawmakers, Massachusetts passed legislation with strong emissions reduction targets and complementary clean energy policies. The law commits the state to reaching net-zero emissions by 2050, adopts clear sector-specific targets for 2030 and 2040, and addresses longstanding socioeconomic inequities.

MIDWEST

UCS efforts in the Midwest yielded several major victories last year. First, Illinois passed sweeping clean energy legislation that requires a 100 percent carbon-free power sector by 2045and prioritizes reducing pollution in historically marginalized communities. The new law also focuses on workforce development programs and policies that will ensure workers and communities are not left behind when their coal mines and nuclear or fossil fuel-fired power plants close as a result of the transition to clean energy.

In addition, Minnesota's largest utility, Xcel Energy, announced it was canceling plans to construct an 800 MW gas-burning power plant while moving forward with the retirement of its coal-burning plants. And the Michigan utility Consumers Energy announced it would significantly accelerate the retirement of its coal-fired plantsclosing all of them by 2025.

IMPACTS ON WORKERS

UCS partnered with the Utility Workers Union of America (UWUA) on an analysis that estimates the costs of setting coal miners and coal plant workers on a new career path. We found that temporary financial assistance and job training would cost between \$33 billion over 25 years and \$83 billion over 15 years, depending on how quickly we transition to clean

energy—a fraction of the total \$4 trillion to \$6 trillion price tag for reaching net-zero carbon emissions by 2050. UCS and our allies used this report to fight for strong policies in support of dislocated workers in the budget legislation currently moving through Congress.

UCS also drew attention to the workers most affected by climate change: those who had to work outdoors—doing the essential jobs of fighting fires, repairing roads, growing our food, and more—despite exposure to increasingly extreme heat. The UCS report Too Hot to Work showed how outdoor workers not only face risks to their health, but also the potential of losing a collective \$55.4 billion in earnings each year by midcentury if we take no action on climate change. The analysis also exposes the fact that many farmworkers have little or no recourse from working in dangerous conditions because their health and safety is routinely discounted by both employers and the legal system.

UCS combined this science with action, actively pushing for protections from extreme heat such as an occupational safety standard that includes contributions from UCS scientists and reflects the positions of the Good Food for All coalition that UCS coordinates. We briefed congressional staff, contributed legislative language, and engaged our supporters to send 26,000 letters to elected officials. In September, the Biden administration responded, announcing a "coordinated, interagency effort" to counter the threat of extreme heat, including a Department of Labor initiative to protect workers.



TAKING ON "BIG AG"

Since the 1970s, US farm policy has paved the way for increasingly bigger farms and food processors—with bigger problems as a result. By documenting this concentration of power in agriculture and its impact on people and the environment, UCS is working to safeguard the future for farmers, food workers, and consumers alike.

Big Ag's practices lead to soil erosion, water pollution, unsafe working conditions, and a lack of opportunity in rural communities. The December 2020 UCS report *Eroding the Future* illustrated the risk to our food supply: it found that in the next 15 years alone, the United States could lose more than eight times the amount of topsoil lost

during the Dust Bowl of the 1930s.

Our April 2021 report Losing Ground revealed that between 1978 and 2017, large farms doubled in acreage, almost entirely at the expense of midsize farms. This consolidation of farmland has been accompanied by a loss of opportunity-particularly for new, young farmers and Black farmers (who made up 14 percent of US farmers in 1920 but just 1.6 percent in 2017). UCS stood with the HEAL Food Alliance and other advocates to help secure desperately needed debt relief for Black farmers, but those payouts have been stalled by court challenges.

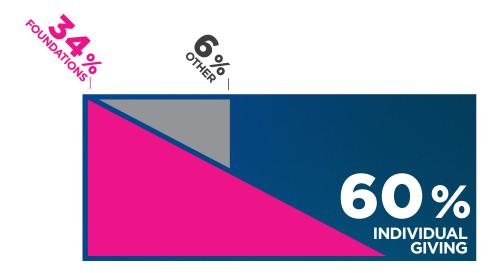
In August, we showed how Tyson Foods—the United States' largest meat and poultry company-has a nearmonopoly on the chicken industry in its home state of Arkansas. Using a measure applied by the Department of Justice to consider antitrust action, UCS calculated Tyson's score as nearly three times the DOJ's threshold.

This degree of power makes it difficult to hold the company accountable for serious harms. For example, despite multiple lawsuits accusing the company of fixing prices and depressing wages, and the fact that it is responsible for 50 billion pounds of chicken waste every year that pollutes Arkansas communities, the company continues to avoid responsibility.

Furthermore, Tyson employees said they are forced to work six days a week and issued points for missing work time-even if sick-that can result in termination. And when COVID-19 was rampant in processing plants, Tyson lobbied for and hid behind an executive order from President Trump allowing its plants to stay open without having to protect workers. It refused to provide adequate protective equipment and lied to employees about the risks. UCS, in partnership with the Food Chain Workers Alliance, brought attention to the issue and won stronger federal protections for frontline food workers (though meat and poultry workers remain at risk).

FINANCIAL

Fiscal year ending September 30, 2021

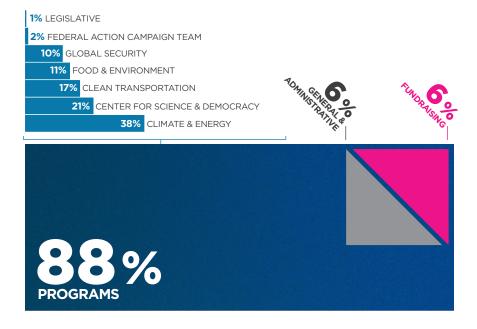


REVENUE

The Union of Concerned Scientists continues to benefit from the generosity of our nearly 120,000 members and foundations, who work in partnership with us to build a healthy planet and safer world. The majority of our support— 60 percent—came from generous individual donors through outright and planned gifts, while support from foundations represented 34 percent of our revenue.

EXPENSES

Eighty-eight percent of every dollar donated to UCS in fiscal 2021 directly funded our program work, with the remaining 12 percent spent on the critical administrative infrastructure and fundraising that support our programs. With an annual budget of \$43 million, UCS continues to strengthen our unique ability to help solve our planet's most pressing problems with the power of independent science.



Note: These results had not been audited at press time; for our audited results, visit the UCS website at www.ucsusa.org/about/funding-financials.

FINANCIAL STATEMENT

Fiscal year ending September 30, 2021

UNRESTRICTED (WITHOUT DONOR RE	ESTRICTIONS)
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OPERATING REVENUE AND OTHER SUPPORT	GENERAL OPERATING	BOARD DESIGNATED	TOTAL	RESTRICTED (WITH DONOR RESTRICTIONS)	TOTAL
Membership and contributions	\$22,681,912		\$22,681,912	\$10,369,976	\$33,051,888
Foundation and other institutional grants	30,000	7,653,010	30,000 7,653,010	20,948,675 751,104	20,978,675 8,404,114
Net investment income					
Realized planned gifts		3,491,818	3,491,818		3,491,818
In-kind contributions	173,664		173,664		173,664
Other revenue	3,830,083		3,830,083		3,830,083
Interfund transfers	(641,053)	641,053			
Net assets released from restriction	17,608,212		17,608,212	(17,608,212)	
Total operating revenue and other support	43,682,818	11,785,881	55,468,699	14,461,543	69,930,242
OPERATING EXPENSES					
Programs:					
Center for Science and Democracy	7,853,563		7,853,563		7,853,563
Clean Transportation	6,522,546		6,522,546		6,522,546
Climate and Energy	14,716,898		14,716,898		14,716,898
Federal Action Campaign Team	895,235		895,235		895,235
Food and Environment	4,055,166		4,055,166		4,055,166
Global Security	3,707,598		3,707,598		3,707,598
Legislative	369,786		369,786		369,786
Total program expenses	38,120,792		38,120,792		38,120,792
Supporting services:					
Fundraising	2,800,641		2,800,641		2,800,641
General and administrative	2,544,057		2,544,057		2,544,057
Total supporting services expenses	5,344,698		5,344,698		5,344,698
Total operating expenses	43,465,490		43,465,490		43,465,490
CHANGE IN NET ASSETS	217,328	11,785,881	12,003,209	14,461,543	26,464,752
NET ASSETS AT BEGINNING OF YEAR	7,837,730	38,116,581	45,954,310	8,763,420	54,717,731
NET ASSETS AT END OF YEAR	\$8,055,058	\$49,902,462	\$57,957,519	\$23,224,963	\$81,182,483

Note: These results had not been audited at press time; for our audited results, visit the UCS website at www.ucsusa.org/about/funding-financials. Shaded area indicates operating budget.

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The following individuals dedicate their exceptional expertise, time, and resources to UCS.

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YOU MAKE IT ALL **POSSIBLE**

We are deeply grateful for your dedication and support. This work would not be possible without your commitment to building a better world together. Thank you.



