

# {Earthwise

Summer 2014

[Union of Concerned Scientists]

{FROM THE PRESIDENT}

## Fresh Urgency and Optimism




© Richard Howard

It's my great pleasure to introduce myself as the new president of the Union of Concerned Scientists. From climate change to

the threats posed by nuclear weapons, I believe UCS deals with the defining issues of our time, and I bring a sense of both urgency and optimism to this work.

I'm proud to come to UCS after having served as commissioner of the Massachusetts Department of Environmental Protection. During my tenure, we showed that economies can grow not in spite of but because of forward-thinking policies that improve energy efficiency and reduce pollution. Indeed, the "green" economy in Massachusetts is booming today with 5,000 new firms and some 80,000 new jobs.

In today's polarized, partisan political landscape, we've got our work cut out for us, but I'm very excited to be part of an organization that can help kindle the kind of changes our country needs. I feel confident that, with your support, we will make this happen, and I look forward to working with you on practical, science-based solutions to our most pressing problems.



**KEN KIMMELL**

{CLOSE TO HOME}

## The Case for Car Sharing



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Zipcar, one of the most well-known car-sharing programs, places cars in different spots around a city for pickup—a convenient option for people who just need to drive occasionally.

Since 2004, Americans have tended to drive fewer miles every year. The trend is led by "millennials"—teenagers and twenty-somethings—but people of all ages are choosing to drive less or not even own a car, often for economic or environmental reasons.

So how do they get around? Bicycle commutes have increased (39 percent between 2005 and 2011 according to the U.S. Public Interest Research Group) as have public transportation trips (10 percent). But cars are still hard-wired into American culture, and goods and services can be too far from home or too cumbersome for many people to obtain without a car. Luckily, a growing number of innovative car- and ride-share programs are available for those who need a set of wheels only occasionally.

### PLANS TO FIT MOST NEEDS

Perhaps the most well-known car-share service is Zipcar.\* Unlike traditional rental services, Zipcar requires membership—starting at around six dollars a month—but offers low hourly and daily rates that include gas, insurance, and maintenance. The idea of a flexible, use-it-as-you-need-it approach seems to be sticking: Zipcar is now available in more than 175 U.S. cities.

RelayRides offers a similar service but with a twist: cars are owned by RelayRides users, not the company itself. When renters need a car or truck, they search for nearby vehicles and arrange pick-up and drop-off logistics with the owner. Rates vary, but can be as low as \$30 a day (significantly less than most traditional rentals).

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## ASK THE SCIENTIST

I've heard conflicting reports about whether global warming has been speeding up or slowing down in recent years. What does the science say?

—Taylor Knight, Napa, CA

Roberto Mera, Kendall Science Fellow in the UCS Climate and Energy Program, responds:



© Mike Olliver

Over the past 15 years, surface air temperatures have continued to rise, though at a slightly slower rate compared

with the late twentieth century.

This “speed bump” in surface temperatures is likely due to phenomena that cause some degree of short-term cooling (such as ocean circulation patterns that pull heat into the deep ocean, or volcanic

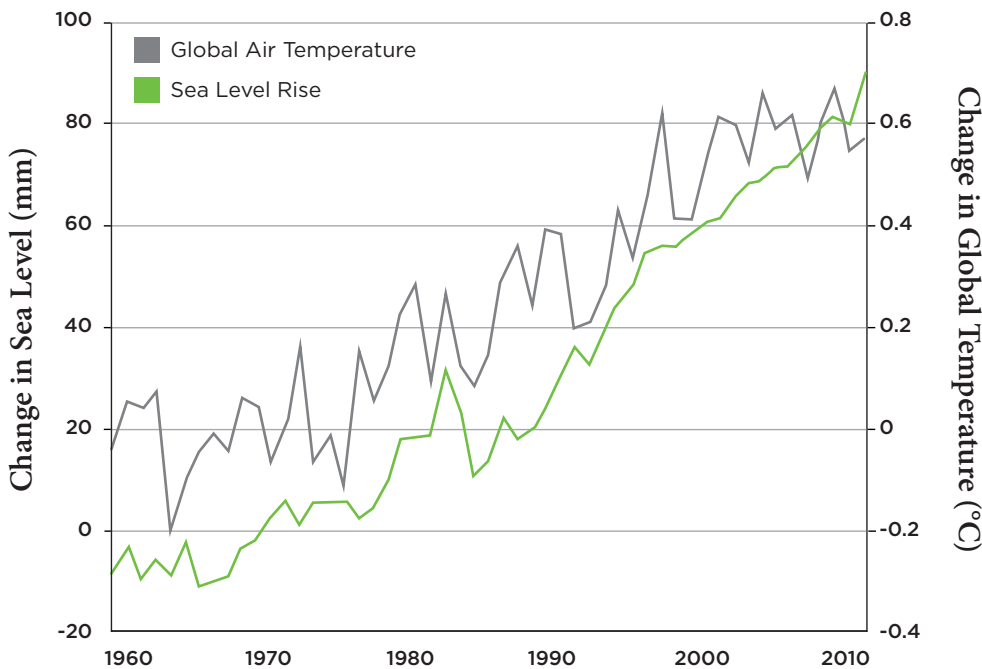
eruptions that release sunlight-blocking ash). Over time, these natural variations could swing in the other direction, and the pace of warming would increase accordingly. Some aspects of climate change have actually continued at an accelerated rate, including sea level rise and the loss of Arctic ice.

Unfortunately, short-term variability often takes attention away from the long-term trends. For example, the past decade has been the warmest on record, and each subsequent decade is very likely

to be hotter than the last. We know with certainty that introducing more carbon dioxide and other heat-trapping gases into the atmosphere will accelerate warming at the planet's surface over time.

As land dwellers we are somewhat shielded from the effects of climate change, because 90 percent of the heat trapped in our atmosphere is absorbed by the oceans. That means, however, that the changes we are experiencing on land are caused by just 10 percent of the trapped heat. And the heat absorbed by the ocean is causing the water to expand, contributing to sea level rise. To learn what actions will minimize the risks of climate change on land and in the sea, visit [www.ucsusa.org/global\\_warming](http://www.ucsusa.org/global_warming).

### Global Temperatures and Sea Level on the Rise



While both global air temperatures and sea level have risen since 1960, the rate of sea level rise has been more dramatic.

SOURCES: ADAPTED FROM NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION DATA

### DOUBLE THE IMPACT OF YOUR GIFT

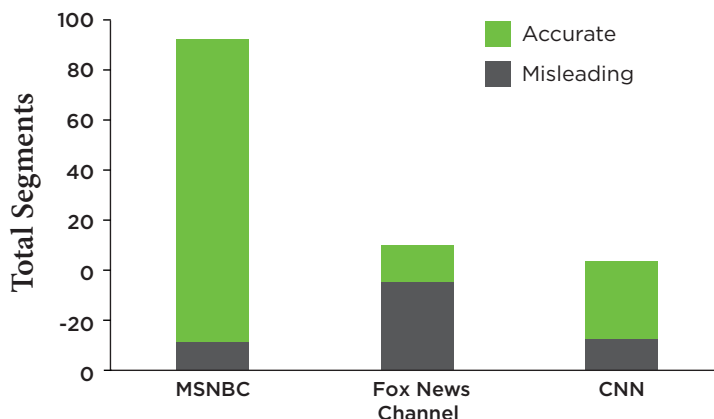
Through July 31, a group of generous UCS members will be matching every donation made by other members, dollar for dollar, up to a total of \$250,000. Don't miss this opportunity to have your support for UCS go twice as far—for more information or to make a gift go to [www.ucsusa.org/match2014](http://www.ucsusa.org/match2014).

## Fox News Needs More Science, Less Spin

Cable news coverage of climate change is an important source of information for the public and policy makers, and can reinforce people's perceptions of the science. Unfortunately, hosts and guests on Fox News—the most widely watched U.S. cable news network—have an all-too-common habit of dismissing climate science and criticizing climate scientists.

Nearly three-quarters of its 2013 prime-time coverage of climate science included misleading statements, according to a new UCS analysis (online at [www.ucsusa.org/scienceorspin](http://www.ucsusa.org/scienceorspin)). More than half of this misleading coverage came from just one show: *The Five*. On the flip side, nearly all the network's accurate coverage came from Bill O'Reilly and Bret Baier's programs. While coverage of climate science at Fox News has improved since 2012—when a previous UCS analysis

Accuracy of Climate Science across the Three Major Cable News Networks



Only 28 percent of Fox News' climate science segments were accurate, compared with 70 percent for CNN and 92 percent for MSNBC. Media outlets can do more to foster a fact-based conversation about climate change and policies designed to address it.

showed that more than 90 percent of the network's segments on climate science contained misleading statements—it clearly has a long way to go.

Tell Fox News to stop arguing about the science and start engaging in productive discussions about climate policy. And remind the network that, if citizens are to contribute to a democratic debate about appropriate responses to climate change, the science behind it should be portrayed accurately. Send a letter from the online UCS Action Center at [www.ucsusa.org/action](http://www.ucsusa.org/action), or mail it to: Fox News, 1211 Avenue of the Americas, New York, NY 10036.

## FAST FACTS

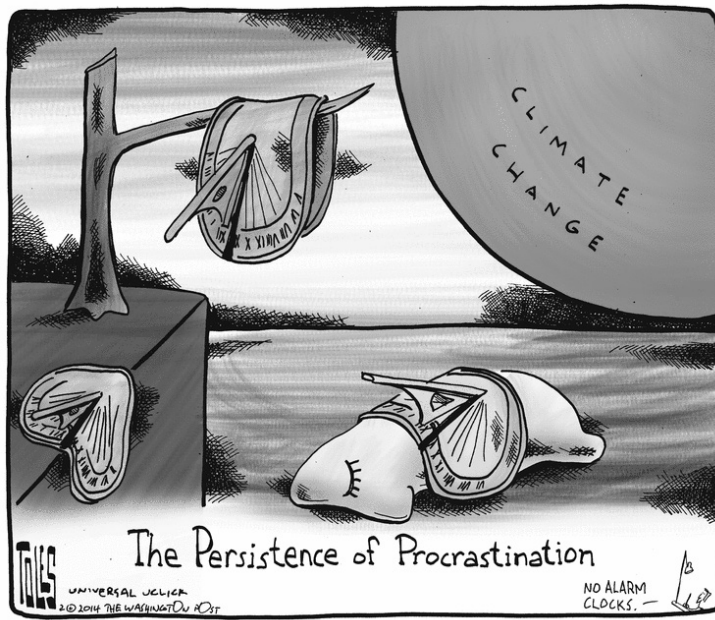
### Cleaner Cars, Healthier Air

This March, the Environmental Protection Agency (EPA) finalized standards to reduce smog-forming emissions from gasoline-powered cars and trucks. UCS supporters played a critical role in this victory, submitting more than 50,000 comments to the EPA, sharing their personal stories about the importance of clean air and more.

Known as Tier 3, these standards will:

- Reduce the sulfur content of gasoline to 10 parts per million (ppm), down from 30 ppm, starting in 2017. This will allow emissions-control equipment to work more effectively, slashing harmful nitrogen oxide emissions from all gasoline-powered vehicles on the road by 260,000 tons in 2018.
- Prevent up to 19,000 asthma attacks, 2,200 hospital admissions, and 2,000 premature deaths each year by 2030, according to the EPA.
- Create more than 24,000 jobs over a three-year period in equipment installation at oil refineries and more than 5,000 permanent jobs in operation and maintenance of the new equipment, according to a study by Navigant Economics.

Oil companies and their allies in Congress worked hard to block these standards, but UCS worked even harder—in concert with a diverse group of allies—to ensure the standards would be finalized. Learn more at [www.ucsusa.org/driveclean](http://www.ucsusa.org/driveclean).





# The Case for Car Sharing

(continued from front page)

Other programs, like Lyft (with its signature pink mustache) and UberX, let you rent seats in other drivers' cars, like a taxi. For longer rides, there's Zimride: just list your trip (say, Boston to New York), state your price (suggested rate: \$25 one-way), and wait for a willing driver.

**The average driver spends \$760 each month to own and operate a vehicle, compared with about \$100 to rent a Zipcar three hours a week.**

## READY TO GIVE UP THE WHEEL?

Of course, car- and ride-share services aren't without downsides. Zipcar can book up quickly on holidays and weekends, and you are fined if you return the car late, making it less than ideal for last-minute trips. The quality and cleanliness of driver-owned cars can vary, and some people might be uncomfortable relying on strangers or their cars (though most services have quality-control checks). There has also been controversy over taxi-style services meeting different insurance, safety, and accessibility standards compared with licensed cabs.

In the end, if car- and ride-share services reduce the number of miles we drive as a nation, they will contribute to much-needed change in the U.S. transportation sector. Transportation consumes a significant amount of oil and, according to the UCS book *Cooler Smarter*, accounts for more than a quarter of the carbon emissions from an average U.S. household. Sharing could reduce those impacts while saving you money: the American Automobile Association estimates the average U.S. driver spends \$760 each month to own, operate, and maintain a vehicle—compared with about \$100 to rent a Zipcar three hours a week.

Bike sharing may also be an option for short trips around town. Many programs offer multiple pick-up/drop-off docks in convenient locations so you don't have to worry about parking.

Increasing the number of transportation options available to consumers is part of our plan to cut projected U.S. oil use in half over the next 20 years. For other effective, practical tips on reducing your global warming emissions, check out our book *Cooler Smarter*, online at [www.ucsusa.org/cooler-smarter](http://www.ucsusa.org/cooler-smarter).

\* **Editor's note:** Company names are listed for identification purposes only, and do not imply UCS endorsement.

## JOIN THE CONVERSATION



Agribusiness giant Monsanto has touted its Roundup Ready line of seeds and herbicides as a weed-fighting superhero. But herbicide-resistant “superweeds” have proven to be Roundup’s kryptonite, infesting millions of acres of U.S. cropland.

Fortunately, farmers don’t have to wait for industry to save the day; using solutions rooted in the science of agroecology, they can be true heroes, working with nature to control weeds—not against it. Visit [www.ucsusa.org/beahero](http://www.ucsusa.org/beahero) to learn more about the misadventures of Monsanto’s would-be superhero, and join UCS in calling for healthy farm policies that could help farmers foil superweeds for good.

**Union of Concerned Scientists**  
Science for a healthy planet and safer world

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**EarthShare**

FIND THIS ISSUE ONLINE: [www.ucsusa.org/earthwise](http://www.ucsusa.org/earthwise)

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

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