



## 5 Shades of Climate Denial, All on Display in the Trump White House

**From ‘it’s not real’ to ‘it’s not urgent,’ take a tour through the many shades of climate change denial wielded by Donald Trump's administration.**

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Whether dismissing global warming as a hoax, questioning humanity's role in it, exaggerating the unknowns, playing down the urgency of action, or playing up the costs, President [Donald Trump](#) and his team have served up every flavor of climate denial.

Although the arguments varied—as if they were different shades or stages of denial—they all served the same purpose: to create an exaggerated sense of dispute in order to bolster a case against decisive climate action. The latest gambit is to avoid the subject entirely.

In his announcement last week that he would pull the U.S. out of the [Paris climate agreement](#), Trump didn't bother addressing temperature trends, carbon concentrations, sea level rise, extreme weather or changing wildlife and vegetation patterns, the kinds of climate change information that his administration has also been [scrubbing from government websites](#). He certainly didn't talk about the 2-degree Celsius goal of the Paris accord or the carbon budget for keeping that goal within reach. Trump didn't even use the words "[climate change](#)."

In Trump's retelling, the negotiators of the Paris deal were not grappling with a planetary crisis, but plotting against the United States. "The Paris Accord would undermine our economy, hamstring our workers, weaken our sovereignty, impose unacceptable legal risk and put us at a permanent disadvantage to the other countries of the world," he said.

Environmental Protection Agency Administrator [Scott Pruitt](#) said the question of climate science hadn't come up during the decision making. "All the discussions we've had for the past several weeks have been focused on one singular issue: Is this good or not for the country?" Pruitt said.

To help understand the arguments, we have developed a guide to what the science says about the five types of climate denial we've heard from Trump, his team, and their supporters, and how each served as a stepping stone on the path of a retreat from Paris.

### 'It's Not Real'

The deepest shade of denial—outright rejection of global warming—is embodied by Trump's infamous 2012 [tweet](#) that called global warming a Chinese plot to make U.S. manufacturing non-competitive. That same year, Sen. James Inhofe, the longtime climate denier and Oklahoma Republican who has been a mentor to Pruitt, released his climate change book, "The Greatest Hoax."

To the hard-core unbelievers, climate scientists are conspirators in it for the grant money. They are not to be trusted, deputy national security adviser K.T. McFarland suggested last month by giving Trump a print-out of a purported 1970s TIME magazine cover predicting a coming ice age. (The cover is an [internet fake](#) that has been circulating for years. It was cited last year by White House strategist [Stephen Bannon in a radio interview](#) he did while running the conservative media outlet Breitbart.)

Such extreme denial has become less politically palatable as global warming causes record heat and weather extremes, and [most Americans](#) believe it is happening. Opponents of climate action have reshaped their arguments, embracing the lighter shades of denial instead—for instance, acknowledging the observed temperature increase (the planet warmed by more than 1.5 degrees Fahrenheit from 1880 to 2012, and in 2016, [the third record-breaking year in a row](#), the temperature was 1.69 degrees higher than the 20th century average), but denying other integral points of the science. These include such basics as the scientific consensus that warming is caused by fossil-fuel burning, or that unabated emissions will have a profound effect on humans and the natural world.

"It could be they just don't know and it's not malevolent," said Michael Oppenheimer, atmospheric scientist at Princeton University. "Another possibility—more likely—is that there was a kind of decision made ... that they would look like fools if they didn't acknowledge global warming exists. But instead, they don't go too far in acknowledging a human role or that there is anything the government could or should do about it."

### 'It's Not Our Fault,' and Other Lighter Shades

Pruitt, the EPA administrator, has raised doubts about humanity's role in global warming, contradicting not only many decades of scientific research, but also his own EPA. So has Secretary of Interior Ryan Zinke. Both agency heads have set a course to eliminate climate policy and rules that restrict fossil fuel development.

"The climate is changing and human activity impacts our changing climate in some manner," Pruitt said repeatedly during his confirmation process. When asked in a [CNBC interview](#) about carbon dioxide, Pruitt said, "I would not agree that it is a primary contributor to the global warming that we see."

Zinke said during his confirmation process, "Climate has always changed."

But in 1995, the Intergovernmental Panel on Climate Change, the UN's chief scientific advisers to climate treaty negotiators, said there was "[a discernible human influence](#)" on the global climate. Since then, the consensus has become even more robust—not only from direct measurements of CO2 and temperatures from land and satellite instruments, but from studies of oceans, ice cores and tree rings.

"Human influence on the climate system is clear," [the IPCC said in its most recent assessment, in 2013](#). "It is extremely likely that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in greenhouse gas concentrations and other anthropogenic forcings together."

What about the notion that the planet has always warmed? The rising temperatures, rising sea levels and diminishing snow and ice that Earth has experienced since the 1950s are "unprecedented over decades to millennia," the IPCC has said.

From a policy standpoint, denying humanity's dominant role in warming has the same inherent "do nothing" prescription as denying warming exists at all.

Stephen Lewandowsky, a psychologist at the University of Bristol in England who has studied efforts to sow doubt on climate science, said go-slow rhetoric has gained credibility because of the contrast with Trump's "hoax" Tweet or other deeper shades of denial.

"[Tillerson] comes across as very responsible because he's not accusing scientists of cooking up a one-world government," Lewandowsky said. "People breathe a sigh of relief—'He's not crazy'—but people don't follow through to see what he's saying is complete nonsense."

The Science Is Just Too Uncertain. Really?

"The increase in greenhouse gas concentrations in the atmosphere are having an effect," Secretary of State [Rex Tillerson](#) said during his confirmation hearing. "Our ability to predict that effect is very limited."

The long-invoked scientific uncertainty argument exploded once again into the public sphere when *The New York Times*' new conservative columnist Bret Stephens launched [his column](#) with a broad swipe at climate scientists and activists for "claiming total certainty about the science."

Stephens characterized the observed temperature increase so far as "modest" (even though the IPCC called it "unprecedented in decades to millennia"), and asserted that this warming was the only indisputable fact in climate science (ignoring other observed changes that don't rely on models, like ocean acidification, movement of species, and the atmospheric carbon concentration.)

After Trump's Paris announcement, when Pruitt was asked about his own views on the science, he cited Stephens' column as a reflection of his view: that the science is uncertain and should be debated further. "People have called me a climate skeptic or a climate denier," Pruitt said. "I

don't even know what it means to deny the climate. I would say that there are climate exaggerators."

But contrary to Stephens' argument, the IPCC does acknowledge uncertainties. That's why it presents a range of estimates for past warming and also several scenarios for the path of future warming based on unknowns, scores of climate scientists wrote in an [open letter](#) in response to the column.

"Stephens suggests that risk management should only be guided by the possibility that warming and its impacts could be less than the best estimate, and not the possibility that it could be more," they said.

Advocates of climate action say that by relentlessly invoking uncertainty, fossil fuel producers have kept the U.S. policy debate stuck on purported unknowns—[long past the time when enough was known](#) about global warming to compel national and international action. In fact, studies have shown that scientists have been far more often [conservative in their projections](#) on climate change impacts rather than alarmist—particularly IPCC assessments of the physical science, which go through several [stages of outside review](#), including by industry experts and governments.

Scientists are almost weekly making new discoveries about climate change and its impacts that bear this out—in recent months, researchers have expressed surprise about [how dramatically weather patterns have changed](#) in the Arctic, on the potential for a [slowdown or stalling](#) of the Atlantic Ocean current in response to warming, and by the [rate of temperature increase](#) in the past three record warm years. "There is a peer-reviewed [study](#) by @NaomiOreskes that shows climate scientists are biased; yes, we tend to UNDERESTIMATE climate impacts," Katharine Hayhoe, director of the Climate Science Center at Texas Tech University, wrote in a [recent tweet](#).

### Urgency, Shmurgency

One key element of climate science overlooked—or ignored—by all of the deniers, no matter their shade of denial, is the urgency of taking action. The IPCC in its last assessment of the science used the concept of a "[carbon budget](#)" to explain that there is a finite amount of carbon dioxide emissions that can be added to the atmosphere if civilization wants to limit the global temperature rise to much less than 2 degrees Celsius and [avoid the worst impacts](#) of climate change.

If emissions continue at their current rate, the world is on track to blow this budget in 30 years. To avoid a temperature rise of 1.5 degrees Celsius, the more conservative course that governments agreed should be their ambition, the carbon budget will be spent in [five years](#), according to at least one analysis.

A study in [Nature](#) last year calculated that, globally, a third of oil reserves, half of natural gas reserves and 80 percent of current coal reserves need to remain in the ground to have even a 50-50 chance of limiting warming to relatively safe levels.

## What About Jobs?

Jerry Taylor, president of the Niskanen Center, thinks he has a unique insight into climate denial.

He spent 23 years at the libertarian Cato Institute arguing against climate action, but he had a change of heart after more deeply studying the science and now argues in favor of a carbon tax. "Scott Pruitt—when he says the science isn't settled, well, some of the science is reasonably settled. And of course, strictly speaking, scientists would tell you no science is ever settled, so what the heck does this exactly mean? He's implying something that isn't true."

Taylor said those who say acting on climate will be too costly ignore the costs of not acting, and they overlook the fact that policies can address the economic burdens of higher fossil fuel costs.

Trump cited [a study sponsored by the U.S. Chamber of Commerce](#) to make his case that the Paris treaty would cost the U.S. economy billions. But the study's assumptions—or example, that there would be no increase in renewable energy to replace coal—are extremely pessimistic.

Numerous other studies have found that dramatically reducing greenhouse gas emissions will yield economic benefits in the form of new jobs in clean energy and related infrastructure, reduced health costs, reduced dependence on foreign oil, and avoided damage from sea level rise, drought, and other climate change impacts. Last month, an analysis by the Organization for Economic Co-operation and Development concluded that the world's major economies could [boost their long-term economic growth](#) by 2.8 percent to 5 percent with policies that lower greenhouse gas emissions and boost resilience to climate change. Failure to act, on the other hand, will result in a loss of jobs and economic output in the long run, the study said.

"Reducing greenhouse gas emissions does indeed impose a price," Taylor said. "But the price is very modest. And the price of ignoring warming is far greater. So costs will come. The only issue is, do we want them to be modest, or do we want them to be large with a not insubstantial risk of them being catastrophic?"