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Fossil-Fuel Money Is Warping Climate Research

Universities must require full funding disclosure

By Craig Callender

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As the effects of climate change become daily more apparent, universities are busy declaring climate emergencies, divesting their financial assets in fossil fuel, and pledging to meet ambitious climate goals. At the same time, however, these institutions are accepting hundreds of millions of dollars from the fossil-fuel industry. In a grim irony, many of the scientists and scholars tasked with helping us survive the climate crisis are funded by companies actively working to delay climate action.

A particularly disturbing instance of this influence is the case of Wei-Hock (Willie) Soon, the climate change-denying Harvard-Smithsonian astrophysicist who has received more than $1 million in funding from fossil-fuel companies — as well as untraceable dark money routed through a fund with a history of supporting climate-denial groups. In 2003 Soon authored an article concluding that the 20th century is “probably not the warmest nor a uniquely extreme climactic period.” The article, published by the peer-reviewed journal *Climate Research*, was the subject of a biting rejoinder from 13 climate scientists; its publication ultimately led five of the journal’s 10 board members to resign.

Since then, Soon has published numerous other articles casting doubt on the idea that human activity is driving climate change, often without disclosing his funding sources. It’s hard not to suspect that fossil-fuel funding bought specific research outcomes: In a report to one of those funders, he describes his scientific papers as “deliverables.”

Most of the influence, however, is more subtle.

In 2011 the MIT Energy Initiative released a white paper, *The Future of Natural Gas*, which advocated government investment in natural gas as a “bridge to a low carbon future.” The authors — one of whom later became secretary of energy — failed to disclose numerous ties to industry. The Energy Institute itself was funded by ExxonMobil, Saudi Aramco, Shell, Chevron, and other oil and gas companies — including Schlumberger, which counts among its directors the Massachusetts Institute of Technology’s president, L. Rafael Reif.

Yet despite these conflicts of interests, the report came to function as an “independent” confirmation of industry’s message. In 2014, for example, it was included among supporting documents compiled by Energy in Depth — a public-relations front for the oil industry — in a successful bid to persuade Allegheny County, Pennsylvania, to lease mineral rights for gas drilling. And its ideas also surfaced in President Barack Obama’s 2014 State of the Union address, which claimed that natural gas could be a “bridge” to a clean energy future.

A more recent example is the 2022 Supreme Court decision in *West Virginia v. EPA,* which limited the Environmental Protection Agency’s ability to restrict greenhouse gases. Justice Neil Gorsuch’s concurring opinion references an article by Susan Dudley, director of George Washington University’s Regulatory Studies Center. The center’s funders include the Koch Brothers, Searle Freedom Trust, and the ExxonMobil Foundation, all large backers of climate-change denialism. Nowhere in the article is Dudley’s funding disclosed.

Such examples are glimpses into a careful strategy of sowing doubt. In the late 1990s, the American Petroleum Institute developed a multimillion-dollar plan to derail government action on climate change by playing up the notion that the science remained “uncertain.” According to a 1998 memo, the program’s goal was “undercutting the ‘prevailing scientific wisdom’” in part by providing research funding for projects that would offer “a complete scientific critique” of the research and conclusions” of the United Nations’ Intergovernmental Panel on Climate Change. We are now witnessing the fruits of that project.

In the decades since, API members and allies have funneled billions of dollars into academic research. Scholarly articles as well as investigative reports from student groups at Cambridge, George Washington, Harvard, Oxford, Princeton, and Stanford detail the jaw-dropping sums at stake. The Energy Biosciences Institute, for example — a research collaboration of three public research institutions — began with a *half billion*-dollar gift from British Petroleum.

What does this money buy fossil-fuel companies? A better reputation? Yes. A chance at intentionally or unintentionally biasing research outcomes? Yes. But it does much more. In essence, the millions of dollars create a kind of shadow academic world, one woven inextricably into the university. It secures favorable white papers, journals, societies, public-policy comments, courtroom testimony, and front groups that attack what the industry sees as damaging science.

It also distorts the research landscape. Money follows research but research also follows money. By pouring millions of dollars into carbon-capture technology — unproven technology that would remove carbon dioxide from the air, but which does not demand emissions reductions — fossil-fuel companies are bending research in their favor. The skewed landscape helped justify putting more money into carbon capture than renewables in the recent 2022 Inflation Reduction Act.

We've seen this strategy before. By the 1950s, tobacco companies knew that their products were addictive and lethal; the evidence linking smoking to lung cancer was incontrovertible. They could not beat the science, so they co-opted it. In what the historian Allan Brandt described as a "public relations masterstroke," the industry argued that more research was necessary to fully understand cigarettes' effects — and then poured money into biomedical research, enlisting the "support and dependence" of university scientists. The strategy worked. Despite killing an estimated 100 million people in the 20th century, Big Tobacco delayed regulation and even benefited from public subsidies for decades, reaping billions in profits.

The vastly larger fossil-fuel industry is now following the same playbook. This time the stakes are even higher.

There are essentially two ways to try to fix this mess: separation and sunshine. Separation aims to disentangle fossil-fuel funding from academe altogether. Sunshine allows industry funding, but requires transparency.

The separation approach is gaining momentum. This year more than 750 academics signed a letter calling for a ban on fossil-fuel money for climate research. The push, organized by the group Fossil Free Research, was widely covered by news organizations in both the U.S. and Britain. Both the University of Cambridge and Brown University are discussing different ways of cutting ties.

While I enthusiastically support disentangling academe from fossil-fuel influence, imposing a ban is challenging. Two decades ago, a number of colleges explored adopting outright bans on tobacco funding for medical research — but only about a dozen managed to do so. Faculty members at many institutions argued that restricting funding violated their academic freedom, and in 2003 the American Association of University Professors agreed. In 2007 a University of California Academic Senate committee voted 43 to 4 against a tobacco ban, citing alleged "grave issues of academic freedom."

Bans are also tricky to write and police. Industry partnerships are vital to universities, so one needs to identify the target very clearly. What is "the fossil fuel industry"? Is a company that derived 15 percent of its profits in 2020 a "fossil fuel company"? The group No Fossil Fuel Money maintains a list of roughly 14,000 fossil-fuel companies. Slightly different criteria lead to very different results.

Both obstacles can be overcome. But since fossil-fuel influence dwarfs tobacco influence, we should expect that bans on fossil-fuel funding will be correspondingly harder to adopt. So we must also pursue the path of sunshine, making industry funding transparent.

Right now, research funding is mostly hidden. We owe it to the public to open the curtain. Universities should require researchers to disclose publicly all funding sources from the past five years for all their research products. They should name both the funder and amount; nothing more, nothing less. Research products include articles, government comments, publications, presentations, newspaper op-eds, white papers, news releases, courtroom testimony, and more — wherever a researcher can be reasonably understood to be speaking as an expert.

This straightforward approach sidesteps the dreaded slippery-slope reaction: Why target fossil fuels? What about other misbehaving industries — and who decides what counts as misbehaving anyway?

Public comments to the EPA on fancy university letterhead would carry disclosure of fossil-fuel ties; so would the white paper peddled by industry; so would the article read by the judge.

There is an important point here. Big-tech companies are also pouring money into universities. Google provides financial support, often undisclosed, to researchers whose work dovetails with the company's positions on regulation and consumer privacy. Monsanto-funded studies of the weedkiller glyphosate have shaped EPA policy. The Chinese telecom company Huawei's funding of U.S. researchers has raised concerns about foreign government influence; several elite American universities have banned such support. Even my little field, philosophy, is infiltrated by Koch funding. The beauty of my proposal is that we don't single anyone out and no one decides who is misbehaving — everyone discloses everything.

Focusing on public disclosure also avoids the academic-freedom issues that dogged universities attempting to ban tobacco money. Researchers can continue to pursue whatever questions they please, with no restrictions on funding. In fact, by protecting research independence, transparency enhances our academic freedom — as the AAUP recognized in a 2014 report.

Many people are surprised that public disclosure isn't already mandatory. In fact, I'm not aware of a single university in the U.S. that insists on publicly disclosing all research funding. Due to scandals in biomedicine, many journals, conferences, and external funders in that field now demand public disclosure. Some universities police financial conflicts of interest, such as owning stock in the company funding you. A handful of institutions even make these financial conflicts public. But university rules are entirely reactive, which creates a byzantine maze of regulations. Nowhere is all funding transparent.

Implementation would be straightforward. Almost all universities in the U.S. already demand that employees internally disclose external funding; that is part of running a grant through a university. Universities simply need to take that private spreadsheet and make it a public registry, perhaps modeled on the 2010 Sunshine Act, which mandates that doctors publicly report gifts and payments from the medical industry. With a few tweaks to ethics rules, a university can make public disclosure an expected practice.

Faculty members at Harvard called for climate-funding transparency in 2019, and my own institution, the University of California at San Diego, is discussing a similar proposal. If adopted by colleges and universities worldwide, such measures would allow scholars, policy makers, and the public to identify previously invisible conflicts of interest. Public comments to the EPA on fancy university letterhead would carry disclosure of fossil-fuel ties; so would the white paper peddled by industry; so would the article read by the judge. The world created by the tobacco strategy would come out of the shadows, and we could more readily identify the distortions in the research landscape caused by the weight of fossil-fuel support.