https://www.newsmakerswithjr.com/post/special-report-the-renegade-california-scientist-helping-trump-dismantle-environmental-law

Newsmakers with JR

June 11, 2020

22 min read

Special Report: The Renegade California Scientist Helping Trump Dismantle Environmental Law

(Newsmakers is posting this special report, reported and written by Marianne Lavelle, courtesy of Inside Climate News, where it was published on May 28).

In March 2017, a scientist named James Enstrom rattled many public health experts by publishing **a study** concluding that there was no link between fine soot air pollution and premature death.

The finding was drastically at odds with the consensus of medical researchers and with the evidence from nearly three decades of previous research.

But it was in line with arguments that Enstrom, a physicist-turned-epidemiologist, had been making for years. His dissent had played an essential role in his ascendance as a folk hero to far-right conservatives who oppose most environmental protection policies in the United States, especially those put in place by the Obama administration.

Enstrom argued that his analysis refuted one of the most influential papers in environmental health science: a **1995 study** by the American Cancer Society showing that fine particulate matter pollution—or PM 2.5, as it is known—is associated with early death. PM 2.5 is produced primarily through the burning of oil, coal and wood.

Enstrom, 76, said he based his study on long-hidden cancer society data from an inside source whom he did not name.

Throughout the article, which appeared in the journal ***Dose-Response***, he took jabs at institutions that he believed had long marginalized him, including the cancer society (ACS), leading scientific journals, the U.S. Environmental Protection Agency and other health researchers, who, he wrote, "need to promptly address my findings." He hinted at scientific malfeasance and suggested that there was a conspiracy of silence against minority views like his.

Big-name journals, Enstrom wrote in the article, were biased against publishing results showing no association between air pollution and mortality, adding that seven other peer-reviewed scientific journals had rejected his study. In an unusual footnote, he also included **a link** to the rejection letters.

Over the next months, Enstrom's paper drew fierce criticism. The cancer society said it **could not confirm** his data's authenticity. The scientists whose work he had critiqued—including some of the world's renowned experts in air pollution health science—published a withering **point-by-point take-down** of Enstrom's methods and analysis.

But in at least one realm, his paper won acceptance. Eight weeks before the study was published, President Donald Trump took office. And in an administration disdainful of scientific consensus and intent on dismantling restraints on the fossil fuel industry, Enstrom found a receptive audience.

When, in April, EPA Administrator Andrew Wheeler announced **the agency's decision** that it would not raise the standards for air pollution because the science of PM 2.5 was too uncertain to justify doing so, he was relying in part on Enstrom's work. Enstrom's research was among the **studies cited** by Wheeler's hand-picked committee of science advisers to raise doubts about the PM 2.5 consensus.

More broadly, Enstrom's work has helped provide the underpinning for the Trump administration's wide-ranging assault on environmental protection policy, from its retreat on

climate change to its current effort to restrict the type of science used by the EPA by disqualifying studies that critics say are some of the most important in human health science.

In a way, Enstrom's journey from outsider to influencer is the story of the Trump administration's monumental campaign to remake the rules of scientific evidence, and how that effort could shape U.S. environmental protection for years to come.

"These are changes that could have very major impacts on human health and on the environment itself," said Bernard Goldstein, dean emeritus of the University of Pittsburgh Graduate School of Health. "All of the laws we passed that cleaned up the environment so well—even with the challenges we still have—these have all been science-based. Well, if you knock the science out of the process, you can base the decisions on politics."

Goldstein, who served as EPA's assistant administrator for research and development under President Ronald Reagan, recently **wrote** that the leadership of the scandal-ridden agency in the early Reagan years "did nothing that even came close to the assault on the independence and expertise of the scientific advisory processes carried out by Wheeler and his predecessor, Scott Pruitt."

'Everything's Been Turned on its Head'

Critics often call the Trump administration "anti-science," but in fact, its retreat on climate change and public health and safety has only been possible with the help of science—the work of contrarians like Enstrom who have devoted themselves to challenging the mainstream consensus.

Trump's appointees have found justification for their actions in the work and ideas of this stable of scientists, most of them industry aligned, who for years have provided ammunition to foes of federal regulation.

These contrarians have helped make the case in agencies, in Congress and in the courts, for coal, oil and other industries intent on maintaining their way of doing business in the face of increasing attention to the threats posed by climate change, and the growing imperative for cleaner air and cleaner energy.

Fossil fuel companies were losing ground in this battle when Trump entered the White House: The Obama administration's actions on global warming seemed as if they might presage the industry's last stand. To change course, the Trump administration has sought to change fundamentally how science is evaluated in environmental decision-making.

Trump's grand moves to upend environmental policy, like withdrawing from the Paris climate accord, are well known. But his legacy may be sealed more deeply in scores of arcane changes deep in the bureaucratic process, like the purging of experts from science advisory committees; the overhaul of cost-benefit analyses; the effort to limit the science that can be used by the EPA; and the reliance on contrarian studies like Enstrom's work on PM 2.5.

"Everything's been turned on its head by EPA, so that the consultants are considered the good guys and the academics are all biased," said Goldstein.

Carol Browner, board chairwoman of the League of Conservation Voters, who was EPA administrator under President Bill Clinton and climate adviser to President Barack Obama, puts it this way: "What they're doing in this whole line of insidious actions is to dismantle and fundamentally change how the agency does its business."

A Plan to Discredit Pollution Science

A number of the actions have been aimed at neutralizing the power of one of the most important findings in environmental health science: The science showing that air pollution kills.

In the 1990s, two large, long-term studies, by the **American Cancer Society** and **Harvard** researchers, showed that breathing higher levels of PM 2.5—microscopic particles 2.5 microns in diameter or less that spew into the air when something is burned—was associated with premature death.

Virtually everyone is exposed to the PM 2.5 because it is produced by the burning of coal, oil and wood.

Groups allied with the fossil fuel and tobacco industries led an effort to discredit the science, but **a reanalysis** of the data by the Boston-based Health Effects Institute (HEI), a nonprofit research organization funded by the EPA and the auto industry, affirmed the findings. Since then, dozens of studies, including more than 30 long-term human health studies in North America, have documented the link between PM 2.5 and premature death.

Based on the science, Clinton enacted the first **national air quality standards** on PM 2.5 in 1997.

Even more important, the large-scale studies of PM 2.5 allowed policy makers to quantify the benefits of cleaner air in a way that had not been possible before. The EPA, after peer-reviewing the science, began using the number of lives saved from reduced PM 2.5 exposure in the cost-benefit analysis it was required to perform to justify new cuts in pollution from cars, trucks and power plants.

In 2011, the EPA **estimated** that the benefits yielded by U.S. air pollution rules from 1990 to 2020 at $2 trillion, a figure that outweighed the costs of the regulation by 30-to-1, savings primarily attributable to reduced PM 2.5. In addition, the Clean Power Plan, Obama's signature climate initiative, was to result in PM 2.5 reductions that would account for up to 60 percent of the plan's projected **$34 billion to $54 billion in benefits**, far outweighing its $8.4 billion in costs.

That lopsided calculus stood in the way of what Trump said was his plan to "**quickly, very quickly**" end U.S. climate policy and other restraints on the oil and coal industries. This was well understood by appointees like Wheeler, a former coal industry lobbyist, and William Wehrum, Trump EPA's assistant administrator for air pollution policy until 2019.

In 2014, Wehrum, a former industry lawyer, led **an unsuccessful lawsuit** seeking to overturn the Obama EPA's PM 2.5 standards, by invoking the work of contrarian scientists like Enstrom. But **a federal court disagreed.** "Petitioners simply have not identified any way in which EPA jumped the rails of reasonableness in examining the science," wrote then-U.S. District Judge Brett Kavanaugh.

Still, that loss pointed to an avenue for a future attack on PM 2.5 science. And soon after taking office, Trump's appointees followed that path, overhauling EPA's science advisory boards and replacing every member of its legally mandated Clean Air Science Advisory Committee or CASAC, which had sided with the mainstream consensus on PM 2.5.

By last year, the reshaped CASAC made clear that it had a far different view of the risks posed by PM 2.5. In a key review, the committee not only disputed EPA's staff scientists on the need to act on new evidence of PM 2.5 health risks, the CASAC members were divided on the long-standing consensus that PM 2.5 caused premature death.

One of the studies the committee cited **in its final report** raising doubts about the science on PM 2.5 was Enstrom's 2017 research report. It had taken a long time for Enstrom to have his work

recognized, and he expressed his satisfaction when he called into a public teleconference of a CASAC meeting last December.

"This is a tremendous group, and I don't believe it's ever been done better in the 50-year history of EPA," Enstrom said of the committee.

A Turning Point

In the Trump era, Enstrom may be a scientific influencer, but he has spent much of the last two decades as an outsider vocal about feeling unfairly maligned.

The point in his life when mainstream scientists turned against him, he believes, came 17 years ago, when he published a paper in the ***British Medical Journal*** challenging the scientific consensus that second-hand tobacco smoke causes heart disease and cancer.

The American Cancer Society **condemned** the study, funded by the tobacco industry through its now-defunct Center for Indoor Air Research, saying it misrepresented the cancer society's data.

The data Enstrom based his research on was from an early ACS long-term study group, whose members were recruited in the 1950s. But at that time, smoking was so ubiquitous that it was impossible to conduct a valid study comparing people who'd been exposed to second-hand smoke with people who hadn't, the ACS argued in rebutting Enstrom's study.

A host of other scientists also joined in: The medical journal published **10 letters** disputing Enstrom's method, findings and the conflict of interest they said was created by the industry sponsorship.

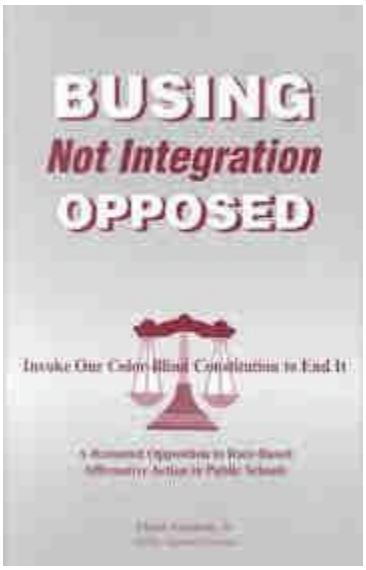
But Enstrom insisted that the work was sound. "This was peer-reviewed, and there's not been one error identified in my paper," he said in an interview with InsideClimate News.

As for the conflict of interest, Enstrom said he saw no difference between his acceptance of funding from a group controlled by tobacco executives and the practice of accepting research money from state cigarette tax funds and tobacco legal settlement money, as his scientist critics had. Both, he said, "originated with" the tobacco industry.

In Enstrom's eyes, he was the target of relentless persecution, smears that had all but obscured the early achievements of his career.

"Up until 2003, I basically had a third of a century where I had a perfect record of integrity," said Enstrom. Since then, he said, "my entire career has been under attack and the attack has never let up."

'If I Didn't Fight I Could Have Disappeared'



Enstrom grew up in a middle class home in southern California, part of a wave of aspiring young Cold War-era scientists inspired by stories of the physicist Albert Einstein and Russia's launch of Sputnik, the first manmade satellite.

Enstrom's father, Elmer, was a courtroom clerk who longed to argue cases instead of swear in witnesses. Elmer Enstrom taught himself law and passed the California bar at 41, eventually serving as a U.S. Magistrate Judge in San Diego.

But he became best known for his pro bono legal work in retirement, representing residents who were fighting court-ordered busing in the San Diego public schools.

The younger Enstrom said he learned the value of perseverance from his father's example.

As a student at Harvey Mudd College in Claremont, California, a then-new institution aiming to nurture the technological talent the United States needed for the space race, Enstrom was co-valedictorian of the class of 1965. He went on to obtain a Ph.D. in physics at Stanford, where his dissertation adviser was Melvin Schwartz, who later won the Nobel Prize.

Enstrom's post-doctoral work at what is now known as Lawrence Berkeley National Laboratory was carried out under another luminary, Luis W. Alvarez, also a Nobelist and a veteran of the Manhattan Project.

Physics, Enstrom recalled recently, was "exciting, exhilarating, because you're on the very forefront of science." But his studies left him unfulfilled.

"If you're doing elementary particle physics, you're basically doing something that's not really that understandable to most people," he said.

Through a college friend, Enstrom met Lester Breslow, California's top health official in the 1960s, who promoted a healthy diet and abstention from smoking as key to a long life.

Enstrom became so drawn to the study of human health that he switched fields, working with Breslow, the dean of public health at the University of California, Los Angeles, for many years on a multi-part study on **the longevity of Mormons**, work supported by the American Cancer Society.

But Enstrom, who obtained a master's degree in epidemiology, was not on a tenure track at UCLA, and he relied on grant money to maintain his research position.

Over the next years, after public health advocates began blasting his work as suspect, Enstrom struck back. He accused those who questioned his integrity of liberal bias, and repeatedly clashed with his previous sponsors, colleagues, other scientists and government officials.

Among those Enstrom said were biased was a colleague, John Froines, a professor in UCLA's environmental health sciences department. Froines was a science adviser to California regulators, and had supported strong air pollution rules.

Politically, the two men could not have been further apart. While Enstrom spent the Vietnam War studying in a defense-related field, Froines was one of the "Chicago Seven," anti-war activists arrested during the riots outside of the Democratic National Convention in 1968.

In 2009, Enstrom helped initiate a lawsuit by **a conservative legal group** charging that Froines had **overstayed** his tenure on California's air pollution science review panel. Amid the controversy, Froines was temporarily removed from the board, but **later reinstated.** Froines, contacted by email, declined comment for this story.

In 2010, UCLA gave Enstrom notice that he was being terminated. His research, the university said, was "not aligned" with the school's academic mission and his research output and ability to secure continued funding did not meet the department's minimum requirements.

Enstrom sued UCLA, charging that his termination, which came after a confidential vote by his department's faculty, was in retaliation for his activism and his "whistleblowing" regarding Froines.

The case was eventually settled, with UCLA denying Enstrom's allegations. UCLA "vigorously supports the principles of academic freedom," the university said in an emailed statement. "Enstrom's presence as a researcher for decades, despite his minority positions defending diesel emissions and tobacco, demonstrates that fact." In the settlement, UCLA paid Enstrom $140,000 and gave him continued access to university resources, as well as permission to use the title "retired researcher."

Enstrom told UCLA's student newspaper, *The Daily Bruin*, that he was **not entirely satisfied** with the settlement, but thought it was the best compromise that could have been reached in the case.

"I am a good scientist, a very honest scientist," Enstrom said. "If I didn't fight I could have disappeared."

A War Over PM 2.5

For Enstrom, a major battleground has always been his home state of California, which historically has led the way in U.S. air pollution regulation. Thousands of pages documenting his advocacy against air pollution regulations are collected at the website of **the Scientific Integrity Institute,** a nonprofit organization he founded in Los Angeles.

In the 1990s, while he was still at UCLA, he began consulting for the tobacco industry, a role that would lead eventually to his study on second-hand smoking and his rift with the American Cancer Society.

Around the same time, Enstrom was contacted by Frederick Lipfert, a consultant for the industry-funded Electric Power Research Institute, who had seen Enstrom's work with the early ACS research cohort.

Lipfert asked if Enstrom could delve into the cancer society data to explore a question of crucial importance to the operators of the nation's power plants, more than half of which were fired by coal at the time: Were the invisible particles that their operations released into the air deadly?

With that, Enstrom joined the war over PM 2.5.

He soon became a one-man exemplar of the wide-ranging and high-stakes conflict over the pollutant. He testified before California state regulators, advised a Congressional committee, and filed a lawsuit over the makeup of EPA's science advisory boards.

In 2005, Enstrom published **a study** funded by the Electric Power Research Institute that found no association between PM 2.5 and premature death in Californians from 1983 to 2002.

That finding again put him at odds with the cancer society because it purported to shed doubt on the ACS's influential PM 2.5 work. It had the flavor of personal payback, as well: A co-author of the cancer society's PM 2.5 study was Michael Thun, then ACS's vice president for research, the same scientist who had condemned Enstrom's tobacco research two years earlier.

But at the time, Enstrom's findings did not gain traction with government regulators.

For the EPA, the decisive flaw in Enstrom's study was his reliance on county-level air pollution data. Rates of premature death in lightly polluted rural areas could skew the rates in heavily polluted cities in the same county, especially in a state like California, with some of the largest counties in the nation.

The original ACS study in 1995 also had inexact exposure estimates, based on urban census tracts that in some cases encompassed several counties. But the ACS researchers had recently published a follow-up study that used smaller zip code areas in Los Angeles and found an even stronger association between PM 2.5 and deadly health effects.

The correlation between the pollutant and harmful health effects also was holding up in research that had begun to use satellite remote sensing to pinpoint PM 2.5 pollution levels in the vicinity of individual people's homes.

So regulators gave little weight to Enstrom's study in comparison with the original Harvard and ACS studies; the reanalysis of that data; the cancer society's follow-ups; as well as research on the effects of PM 2.5 carried out in other places, using different groups of subjects and different methodologies. These studies were augmented by work in lab animals that provided evidence of

how PM 2.5 can disturb the cardiovascular system. In 2009, the EPA concluded that a broad body of evidence affirmed PM 2.5's deadly toll.

"The evidence that combustion-related fine particle pollution contributes to both respiratory and cardiovascular diseases is just pretty compelling," said C. Arden Pope, an economist at Brigham Young University and a co-author of both the original Harvard and ACS studies and follow-up studies.

"There are probably no two studies in environmental health that have been more independently reanalyzed," Pope said. "They have been scrutinized in really remarkable ways and have held up."

A Campaign Against 'Secret Science'

Enstrom, however, was convinced that the findings of the Harvard and ACS studies were biased and politically motivated, carried out by scientists who favored more U.S. government regulation.

"What I'm watching is the descent of epidemiology from what used to be a legitimate public health science into just pure activism," he said.

The legal battle with UCLA had earned Enstrom stature on the right. The libertarian publication *Reason Magazine* produced an online video on his mistreatment at the hands of what it called "**the Green Regulation Machine**." The conservative American Freedom Alliance honored Enstrom as a "Hero of Conscience," along with his wife, Marta Villanea, an administrative law judge, who supported him throughout his trials.

"All I did is what a good wife should do," Villanea said in her acceptance speech.

Enstrom joined the **board of trustees** of the American Council on Science and Health, an industry and Libertarian-funded group that describes itself as a "a pro-science consumer advocacy organization," although critics note that its advocacy invariably takes the form of battling government regulation.

Enstrom also became a science advisor to the Heartland Institute, the conservative think tank that has long supported and promoted work that disputes the science on climate change.

Steve Milloy, a former tobacco and coal industry adviser who had been leading attacks on PM 2.5 science from the beginning, said that Enstrom brought to the fight a "personal story of persecution."

"It's hard for people to understand what's going on unless you've been really intimately involved in this saga, and Jim has been," said Milloy. "He's actually had his career damaged by it, and so he feels it very personally."

Milloy, working with a fossil fuel-industry funded legal advocacy group, represented Enstrom in a **lawsuit against EPA** in 2016, alleging bias in the choice of scientists who served on its scientific advisory boards.

Enstrom also began advising U.S. Rep. Lamar Smith (R-Texas), who after becoming **chairman of the House Science Committee** in 2013 took up the cause of discrediting the science on PM 2.5.

Smith derided the ACS and Harvard studies as "secret science," adopting a line of attack launched two decades earlier by industry foes of regulation who characterized the studies' routine protections of patients' confidential medical data as nefarious.

Smith pelted the EPA with subpoenas seeking the raw data, and continued his efforts even after he was reminded that the studies had already been re-analyzed. However, he said he knew one **legitimate researcher** whose request for access to the raw data had been turned down by the American Cancer Society: James Enstrom.

The EPA ultimately complied with Smith's subpoena, but Smith did nothing further with the data. Instead, he sponsored a "secret science" bill seeking to bar the EPA in the future from relying on studies that used confidential data in regulatory decision-making. Critics said it would bar the public health agency from using some of the most important human health science. The legislation, first introduced in 2014, passed three times in the GOP-led House, but was never taken up by the closely divided Senate.

By the time of the last vote in **March 2017**, however, Trump was in the White House, and the prospects for Smith's proposal suddenly improved.

The Trump administration was in a position both to enact limits on the EPA's use of mainstream science and to give more weight to contrarian work of scientists like Enstrom, who had just published his new study challenging the foundations of PM 2.5 science.

Enstrom's 'Odd Man Out' Study

Enstrom's study almost wasn't published. "I have never read a paper that so willfully ignored the breadth of scientific evidence and attacked a specific study/group of investigators," said a reviewer for the *New England Journal of Medicine*, one of the scientific journals that rejected the manuscript.

But Enstrom finally got the paper in print by reaching out to Edward Calabrese, a toxicologist at the University of Massachusetts, who had submitted a letter in support of Enstrom during his fight with UCLA.

Calabrese was a founder of the International Dose Response Society, an organization that holds that exposure to low doses of toxic agents can be beneficial—a position embraced by many industry groups and rejected by many advocates of strong environmental protection policies.

He was also the editor of the society's journal, ***Dose-Response.*** Aware of the controversy Enstrom's study would stir, Calabrese agreed to publish, but warned Enstrom he would give the authors Enstrom challenged a chance to respond. "I said you'll have to take your whacks by the people you're going to hit, and they're formidable people," Calabrese recalled.

In fact, the authors of the original ACS study and the Health Effects Institute (HEI) reanalysis soon published a **detailed** response, citing a litany of problems they had identified in Enstrom's work.

The most significant fault, they wrote, was Enstrom's use of old, county-level PM 2.5 readings instead of employing newer methods now widely used to estimate exposure more precisely. The authors of the critique had just published their latest **follow-up study** of the ACS cohort, using seven different methods of estimating pollution, including satellite remote sensing, and finding even more significant associations between PM 2.5 exposure and premature death.

Enstrom rejected the critiques of his study—in fact, in an interview last year, he refused to accept that the substance of his work had been called into question at all.

"This is an old tactic that's used by people who don't want to address fundamental issues," Enstrom said. "Instead of addressing what I did, they use the tactic of looking at what I didn't do, and which they know I can't do. It's a miracle that I was able to do what I did do, because of all the efforts to stop me, and the fact that this data is not available outside their little clique."

Changing the Rules

Enstrom's study was well-timed to figure into U.S. air pollution policy decision-making. As Trump took office, the EPA was already launching its re-assessment of the state of current science on PM 2.5, as the law requires the agency to do every few years for key pollutants to ensure that Clean Air Act regulations are adequate.

This time around, there was major new science on PM 2.5 to consider, including one of the largest studies ever, **a Harvard analysis** of the health records of 60 million Medicare recipients. It indicated that lowering PM 2.5 pollution nationwide by just 1 microgram per cubic meter would save 12,000 American lives annually. The research found the risk of premature death for African Americans in the study was three times as great as that for the general population.

But how the EPA weighed the science was affected profoundly by the changes made at the agency by Trump's team, who borrowed the ideas and rhetoric that industry foes of regulation had honed in the 25-year battle over PM 2.5. Several members of Trump's transition team, including Milloy, were longtime warriors in the campaign to discredit the science.

Trump's first EPA Administrator, Scott Pruitt, **accelerated the schedule** for considering the adequacy of the national PM 2.5 science by two years, so that the review could be concluded by the end of Trump's first term in office. And in the name of "**sound science**" and "independence," Pruitt **barred** recipients of EPA grants from serving on agency science advisory boards. Since the EPA is one of the largest funders of environmental science, the move had the effect of knocking prominent experts off the committees.

To replace them, Pruitt and his successor, Wheeler, **named industry-friendly state regulators and consultants** for regulated industries, who faced no similar conflict-of-interest bar. Wheeler **eliminated altogether** a separate 20-person expert panel on particulate matter. It was precisely the sort of overhaul that Milloy and Enstrom had sought in their 2016 lawsuit against the EPA.

The agency's rank and file was still staffed with scientists who predated Trump, and they gave Enstrom's paper little weight when they considered it against the bulk of evidence on PM 2.5. The staff scientists cited more than 2,600 scientific studies in **a nearly 2,000-page analysis** finalized on Dec. 31, 2019. It affirmed the EPA's long-standing conclusion that PM 2.5 was a cause of early death. In **a separate analysis,** EPA staff recommended a stricter national standard for fine particulate matter pollution.

But the Trump administration's revamped six-member Clean Air Science Advisory Committee saw things differently. Chaired by statistician Louis Anthony Cox, a Denver consultant for the American Petroleum Institute and other industry groups, the CASAC urged that the agency require **a much higher burden of proof f**or assessing pollution's health harms.

Enstrom's 2005 study was included in **the list of studies** that the committee said raised doubt about the link between PM 2.5 and premature death. And one CASAC member, Sabine Lange, a toxicologist for the Texas Commission on Environmental Quality, wrote in a separate attachment that Enstrom's 2017 study could be an effective challenge to the seminal American Cancer Society research.

"The Enstrom study had a finer resolution, so one would guess that it had less exposure error and therefore possibly a greater effect estimate, or one with narrower confidence intervals," she wrote.

Last month, when the EPA announced **it would not strengthen the pollution standard**, Wheeler cited the committee's report and the doubts about the PM 2.5 science to justify the decision. "We've identified a lot of uncertainties," he said.

Currently, Wheeler is moving forward with **an initiative** to change how the agency weighs science in the future. The proposal, called "**Strengthening Transparency in Regulatory Science**," is essentially the idea that Smith attempted to move through Congress three years ago, barring the EPA from basing decisions on studies that rely on patients' confidential medical data, as the original ACS and Harvard Six Cities PM 2.5 studies did.

A wide array of health, medical and science organizations oppose Wheeler's decision not to raise the PM 2.5 standard decision. On April 14, nineteen health and medical organizations, led by the American Lung Association, said in a **statement** that the Trump EPA had employed a "deeply flawed" process and ignored "powerful, overwhelming evidence" that the current PM 2.5 standard is inadequate.

Scientists and health organizations are also **fighting** the so-called "transparency" rule—critics say even the name has an Orwellian ring to it, because the proposed regulation is not transparent about its purpose.

The public comment period on the proposed rule ended May 18, while the deadline for the public to weigh in on the PM 2.5 standard is June 29. "The way I see it, now, all the pieces are falling into place" in the Trump administration's plan for weakened regulation, said Gretchen Goldman, research director for the Union of Concerned Scientists' Center for Science and Democracy.

She said the purge of the science advisory boards, the appointments of industry consultants to the advisory committee and other changes to the process have helped obscure the strong scientific consensus around the risks of PM 2.5, while elevating the importance of the work of scientists like Enstrom.

"These contrarian scientists really have the ear of the EPA in ways they never had before," Goldman said. "People like Enstrom provide the appearance of an independent scientist weighing in, and It all works together to get where we are—a rule that does not protect health with an adequate margin of safety."

H. Christopher Frey, a professor of environmental engineering at North Carolina State University, who was a member of the particulate matter expert panel that Wheeler disbanded, said that the changes made under the Trump administration amounted to a rigging of the process. "If I wanted to design a science review that would have a predetermined outcome favorable to the regulated industries, I would get rid of the real experts," he said.

Members of the disbanded panel, in fact, felt so strongly about the issue that they met on their own and **submitted a report** to EPA endorsing the agency staff's finding that the PM 2.5 standard needed to be strengthened.

Frey said Enstrom's argument—that his study has refuted the 1995 ACS study, and therefore, the EPA's PM 2.5 standard should be withdrawn—reveals a fundamental misunderstanding of the process.

"The standards are not set based on a single study, and they're not withdrawn based on a single study," Frey said. "It's the overall body of evidence that is important."

'A Journey Almost Impossible to Comprehend'


The New York Times

U.S. DEATHS NEAR 100,000, AN INCALCULABLE LOSS

Enstrom said recently that although he thinks there is no need for a PM 2.5 standard at all, he is gratified by Wheeler's decision to maintain the current standard and to move forward with the "transparency" rule.

"It shows the value of persistence in terms of believing in honest science and trying to penetrate what seems like an impenetrable wall of dishonesty and deception," he said. His struggle to be recognized, he added, was "a journey that is almost impossible to comprehend. It's just been incredibly contentious and for what purpose I'm not sure I know, other than just deliberate power, power and ego."

During a recent phone interview, Enstrom detoured frequently into speculation about "the other side" in the air pollution science debate.

He complained that air pollution studies authored by "activist Canadians" should not be the basis for U.S. environmental regulations. And he noted that a Chinese businessman's family foundation has helped fund the Harvard T.H. Chan School of Public Health and that Chinese doctoral students were co-authors on the school's air pollution studies.

"Do you see any of these Harvard people going over to China or central Africa where you do have air pollution problems?" Enstrom asked. "No. Their only goal is to force more regulation on Americans."

Enstrom expressed particular outrage about a pre-publication study **recently released** by a Harvard group that found PM 2.5 levels in the United States to be associated with higher death rates from Covid-19. (The researchers have since **revised their findings** to reflect a lower, but still significant, association).

Enstrom has published his own calculations of the pandemic's effects in the conservative Heritage Foundation's publication, ***The Daily Signal.***

Averaging counts of **total mortality** in the United States by the Centers for Disease Control and Prevention for the five weeks ending April 4, early in the pandemic, he concluded that deaths were no higher than expected. And based on those numbers, Enstrom wrote, "It's possible that the lethality of Covid-19 is no greater than that of the seasonal flu."

Since then, the CDC's weekly death counts have been as much as 36 percent higher than expected, and the agency estimates that Covid-19 is at least 10 times more deadly than the flu. Enstrom said he remains convinced that the impact in the U.S. is limited geographically, primarily to New York, and that public officials have overreacted. Although the loss of life was significant in the flu pandemic of 1917-1918, Enstrom said, "The country dealt with it. It was terrible, but it was not something to shut down the entire economy."

Recently, Enstrom has sent personal emails to scientists and public interest groups who have criticized the Trump administration's review of PM 2.5 science, asking them to discuss his evidence that "there is NO causal relationship between PM 2.5 and total mortality in the U.S."

So far, he lamented recently, no one has responded.

Images: James Enstrom (Inside Climate News); Trump and former EPA chief Scott Pruitt (Vox); EPA Administrator Andrew Wheeler (Slate); L.A. downtown skyline 2018 (L.A. Times); Anti-busing volume by Elmer Enstrom (Amazon); John Froines (killcarb.org); Electric Power Research Institute logo (Linkedin); Rep. Lamar Smith and Trump (San Antonio Express); Edward Calabreese (ccnsociety.com); Louis Anthony Cox (eenews.com); Gretchen Goldman (ucsusa.org); New York Times front page when Covid-19 deaths in U.S. reached 100,000.

Newsmakers With Jerry Roberts
329 S Salinas St,
Santa Barbara, CA 93103
newsmakerswithjr@gmail.com

(805) 451-2099