

Heads They Win, Tails We Lose

How Corporations Corrupt Science at the Public's Expense

Terminating and suppressing research. Intimidating or coercing scientists. Manipulating study designs and research protocols. Ghostwriting scientific articles. Publication bias. Downplaying evidence and playing up false uncertainty. Vilifying scientists. Promoting experts who undermine the scientific consensus. Hiding behind front groups. Influencing the media. Attacking the science. Hindering the regulatory process. Corrupting scientific advisory panels. Spreading disinformation. Secrecy in lobbying. Terminating and suppressing research. Intimidating or coercing scientists. Manipulating study designs and research protocols. Ghostwriting scientific articles. Publication bias. Vilifying scientists. Promoting experts who undermine the scientific consensus. Hiding behind front groups. Attacking the science. Hindering the regulatory process. Corrupting scientific advisory panels. Spreading disinformation. Secrecy in lobbying. Judicial review of scientific literature. Manipulating study designs and research protocols. Ghostwriting scientific articles. Publication bias. Vilifying scientists. Promoting experts who undermine the scientific consensus. Hiding behind front groups. Attacking the science. Hindering the regulatory process. Corrupting scientific advisory panels. Spreading disinformation. Secrecy in lobbying. Terminating and suppressing research. Intimidating or coercing scientists. Manipulating study designs and research protocols. Ghostwriting scientific articles. Publication bias. Vilifying scientists. Promoting experts who undermine the scientific consensus. Hiding behind front groups. Attacking the science. Hindering the regulatory process. Corrupting scientific advisory panels. Spreading disinformation. Secrecy in lobbying. Judicial review of scientific literature. Manipulating study designs and research protocols. Ghostwriting scientific articles. Publication bias. Vilifying scientists. Promoting experts who undermine the scientific consensus. Hiding behind front groups. Attacking the science. Hindering the regulatory process. Corrupting scientific advisory panels. Spreading disinformation. Secrecy in lobbying. Terminating and suppressing research. Intimidating or coercing scientists. Manipulating study designs and research protocols. Ghostwriting scientific articles. Publication bias. Vilifying scientists. Promoting experts who undermine the scientific consensus. Hiding behind front groups. Attacking the science. Hindering the regulatory process. Corrupting scientific advisory panels. Spreading disinformation. Secrecy in lobbying. Judicial review of scientific literature. Manipulating study designs and research protocols. Ghostwriting scientific articles. Publication bias. Vilifying scientists. Promoting experts who undermine the scientific consensus. Hiding behind front groups. Attacking the science. Hindering the regulatory process. Corrupting scientific advisory panels. Spreading disinformation. Secrecy in lobbying. Terminating and suppressing research. Intimidating or coercing scientists. Manipulating study designs and research protocols. Ghostwriting scientific articles. Publication bias. Vilifying scientists. Promoting experts who undermine the scientific consensus. Hiding behind front groups. Attacking the science. Hindering the regulatory process. Corrupting scientific advisory panels. Spreading disinformation. Secrecy in lobbying.



EXECUTIVE SUMMARY



Union of Concerned Scientists
Citizens and Scientists for Environmental Solutions

Access to the best available science allows federal decision makers to craft policies that protect our health and safety and the environment. Unfortunately, censorship of scientists and the manipulation, distortion, and suppression of scientific information has threatened the federal scientific enterprise in recent years.

This serious problem has sparked much debate, but few have analyzed the key driver of political interference in federal science: the inappropriate influence of companies with a financial stake in the outcome. This influence affects not only the science

OZONE

The Clean Air Act requires the Environmental Protection Agency (EPA) to base standards for certain pollutants, such as ozone, solely on science. The George W. Bush administration set an ozone standard that was not supported by science, and President Obama pledged to revisit it. But as the EPA was finalizing its work, top White House officials including the White House chief of staff met with business groups including the Business Roundtable, the U.S. Chamber of Commerce, and the American Chemistry Council that were opposed to a strengthened ozone standard. Subsequently, the president ordered the EPA to stop its review.



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used in decision making, but also public opinion and the decision-making process itself. By better understanding how corporations influence the use of science in federal decision making, we can both hold companies and policy makers accountable for their actions and ensure that the nation develops science-based policies that serve the public interest.

The first chapter of this report explores the numerous methods corporate interests employ to inappropriately influence how the federal government uses science to make decisions. The second chapter provides an overview of the steps the Obama administration has taken to restore scientific integrity to federal policy making. The third chapter focuses on the federal reforms still essential to ensure that authoritative and independent scientific information informs policies designed to protect public health and the environment. Recognizing that solving this problem extends far beyond what the government can accomplish alone, we also suggest broader reforms that corporations, the scientific community, academic institutions, news media, and the courts can pursue to ensure transparency and accountability in the use of science.

The twenty-first century presents the United States and the world with urgent science-based challenges. We must have the ability to use independent science to address problems such as the need for high-quality yet affordable health care, terrorism, climate change, rising demand for energy and natural resources, population growth, and the loss of biodiversity, and to anticipate and tackle challenges unknown today.

Methods of Abuse

Corporations attempt to exert influence at every step of the scientific and policy-making processes, often to shape decisions in their favor or avoid regulation and monitoring of their products and by-products at the public's expense. In so doing, they often attempt to fundamentally alter the decision-making process and exploit executive branch agencies, Congress, and the courts.

Corrupting the Science

Corporations that stand to lose from the results of independent scientific inquiry have gone to great lengths to manipulate and control science and scientists by:

Terminating and suppressing research. Companies have controlled the dissemination of scientific information by ending or withholding results of research that they sponsor that would threaten their bottom line.

Intimidating or coercing scientists. Corporations bury scientific information by harassing scientists and their institutions into silence. Scientists have been threatened with litigation and the loss of their jobs, have had their research defunded, have been refused promotion or tenure, and have been transferred to non-research positions, leading to self-censorship and changes in research direction.

Manipulating study designs and research protocols. Corporations have employed flawed methodologies in testing and research—such as by changing the questions scientists are asking—that are biased toward predetermined results.

Ghostwriting scientific articles. Corporations corrupt the integrity of scientific journals by planting ghostwritten articles about their products. Rather than submitting articles directly, companies recruit scientists or contract with research organizations to publish articles that obscure the sponsors' involvement.

Publication bias. Corporations selectively publish positive results while underreporting negative results. While not directly corrupting science itself, these publishing and reporting biases skew the body of evidence.

Shaping Public Perception

Armed with public relations teams, private interests have launched campaigns that influence public opinion and undermine understanding of scientific consensus. Among their methods:

Downplaying evidence and playing up false uncertainty. As scientific understanding of the health

effects of products and substances such as tobacco and particulate emissions emerges, companies fight regulation by attacking the science, downplaying scientific consensus, exaggerating scientific uncertainty and spreading doubt.

Vilifying scientists. Scientists analyzing the health and environmental effects of products such as asbestos and lead, and phenomena such as climate change, are publicly criticized and attacked.

REVOLVING DOOR

Officials who shuttle between high-level government positions and regulated industries or companies undermine the integrity of federal science and public confidence in government. While sharing expertise among different sectors can sometimes be beneficial, there is serious risk that the revolving door will allow individuals with clear financial conflicts of interest to hold key decision-making positions. Predictably, revolving-door officials develop or direct policies that benefit a former or prospective employer. The legacy of political appointees with conflicts of interest lives on even after their departure—through both the policies they helped develop and the erosion of public trust in agency integrity.



These attacks and allegations of misconduct discredit the scientists and deter them from continuing their research.

Promoting experts who undermine the scientific consensus. Corporations promote individuals who overemphasize research that appears to cast

MENAFLEX

New Jersey company ReGen Biologics attempted to gain Food and Drug Administration (FDA) approval for clinical trials of Menaflex, a device it developed to replace knee cartilage. After an FDA panel rejected the device, the company enlisted three members of Congress to influence the evaluation process. In December 2007, Sen. Frank Lautenberg, Sen. Robert Menendez, and Rep. Steve Rothman wrote to FDA Commissioner Andrew von Eschenbach asking him to personally look into Menaflex. Soon thereafter, the commissioner met with ReGen executives and heeded the company's advice to have Dr. Daniel Shultz, head of the FDA's medical devices division, oversee a new review. The FDA fast-tracked and approved the product despite serious concerns among scientists. The FDA acknowledged its error and revoked approval in 2010.



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doubt on the scientific consensus. Often their expertise is not in a relevant field, limiting their ability to effectively evaluate the scientific findings they are criticizing.

Hiding behind front groups or "capturing" organizations. Companies use front groups, public relations firms, and other paid consultants to covertly advance corporate interests while these entities maintain the illusion of independence.

Influencing the media. Corporations inaccurately portray science by feeding the media slanted reports and news stories, or biased spokespeople.

Restricting Agency Effectiveness

Companies engage in activities that undermine the ability of federal agencies to use independent science to regulate products. Companies also advocate for more layers of bureaucracy, and take advantage of inappropriate relationships with agency personnel, to hinder the development of policies that protect the public and the environment.

Attacking the science. Corporations have attacked the science used to inform federal policy making in an attempt to delay regulation.

Hindering the regulatory process. Corporations advocate for policies that limit the ability of agencies to use the best available science when making decisions. So-called "regulatory reforms" limit agencies' resources, curb the role of science in decision making, or put an extraordinary burden of proof on agencies before they can act.

Corrupting scientific advisory panels. Government agencies rely on independent scientific advisory panels to provide objective advice. But panel members often have undisclosed financial conflicts of interest: ties to companies that stand to win or lose based on the findings of these advisory committees.

Spinning the revolving door. Officials shuttle between high-level government positions and regulated industries or corporations. This

revolving door can lead to regulatory capture: federal agencies charged with protecting the public can end up as shields or advocates for the regulated industries.

Censoring scientists and their research. Federal officials with industry ties have deleted selected evidence from scientific documents, knowingly adopted flawed methodologies, put direct pressure on scientists and their supervisors to alter findings, and censored scientists to prevent them from speaking publicly or with the media.

Withholding information from the public. Besides censoring scientists, federal officials acting on behalf of corporate interests have buried scientific findings, delayed the release of information, or otherwise suppressed or withheld scientific information.

Influencing Congress

The injection of billions of dollars into congressional lobbying and election campaigns compromises the will of members of Congress to respond to the needs of the people they represent. Money and secrecy in lobbying, excessive campaign funding, and a revolving door on Capitol Hill give corporate interests unprecedented and undue access to members of Congress. This influence encourages members to challenge scientific consensus, delay action on critical science-based problems, and shape the use of science in policy making. A recent marked increase in lobbying expenditures, along with greatly relaxed rules on corporate spending on elections, has exacerbated these pressures.

Exploiting Judicial Pathways

Judges play a growing role in deciding whether to admit scientific information as evidence, and in ruling on science-based laws and regulations. Corporate interests have expanded their influence on the judicial system, used the courts to undermine science, and exploited judicial processes to bully and silence scientists. State judicial elections have become multimillion-dollar campaigns backed by political parties and special-interest groups.

Restoring Scientific Integrity: The First Three Years

President Obama is the first president to take on the challenge of creating strong federal standards for scientific integrity and improving scientific advice to the government. At the beginning, the president signaled that reforms to bolster scientific integrity would be a priority for his administration. In his inaugural address, he pledged to "restore science to its rightful place," and took several initial steps to make good on that promise.

The president appointed several top scientists to senior positions in the administration. His science advisor reports directly to him, unlike the situation during the George W. Bush administration, when the science advisor reported to the White House chief of staff, limiting the science advisor's access to many important discussions. The Obama White House also issued guidelines directing federal agencies to develop and implement scientific integrity policies. Some of the resulting policies have spurred significant, positive steps to ensure that agency decisions rest on the best available science.

A lack of transparency also facilitates political interference in how and on what basis decisions are made, and limits public access to scientists and scientific resources. Administration officials have taken several steps to make the government more transparent and accountable. The White House issued an Open Government Directive that, while not perfect, has expanded public access to large amounts of data. The White House also began releasing its visitor logs to allow for more public understanding of who is influencing decisions, and streamlined the release of other government information through Freedom of Information Act requests and other means.

Some agencies have made transparency a priority. For example, EPA Administrator Lisa Jackson issued a "fishbowl" memorandum on her first day on the job clarifying that the agency would operate with full transparency—as if it were a fishbowl. The agency made information on the safety of chemicals used and produced by industry more publicly accessible.

Other agencies have improved the ability of their scientists to share research results and analysis with the public. For example, the National Oceanic and Atmospheric Administration's (NOAA's) scientific integrity policy explicitly gives its scientific staff the authority to speak to the media without obtaining permission from press officers, and reaffirms their right to freely express their personal opinions as private citizens.

The president reversed a Bush administration executive order that had shifted the power to commence rule making from agency heads to the White House. The administration has also fought anti-regulatory proposals from members of Congress that would undermine the ability of federal agencies to use science to protect public health and the environment.

NOAA

The process of developing scientific integrity policies has contributed to positive changes in agency culture. For example, NOAA Administrator Jane Lubchenco encouraged all NOAA employees to provide input into the agency's policy. The resulting conversations raised employees' understanding of the importance of scientific integrity in government, and encouraged employees at all levels to take ownership of the final policy.



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The administration has also strengthened ethics and conflict-of-interest policies for federal employees. Federal political appointees must now submit conflict-of-interest reports and recuse themselves from policy making that affects previous employers. Appointees who are seeking jobs outside government are also prohibited from working on policies that would benefit a prospective employer.

Essential Federal Reforms

Despite these steps, further federal commitments to protect science from undue corporate influence are essential. For example, agencies and departments should strengthen and fully implement their scientific integrity policies. The federal government should also adopt the following reforms:

Protecting Government Scientists

Scientists and researchers should have the protections they need to fulfill their public service responsibilities. They should not fear intimidation or face litigation for the direction of their research, or for publishing or speaking about their results.

To support this, the administration should continue to assert that retaliation against federal employees who report political interference in science—such as by reassigning, demoting, or firing those scientists—will not be tolerated. Congress should also pass the strongest possible whistleblower protection law, and strengthen the federal entities that give employees a safe and secure means of reporting misconduct and corruption. At the same time, the National Academy of Sciences should explore appropriate responses for scientists and institutions facing harassment or intrusive open-records requests that interfere with their ability to pursue research.

Making the Government More Transparent and Accountable

Information created by or submitted to the government should be more transparent. The science advisor should review agency policies on clearing official and nonofficial articles, presentations, and other information for publication. Agencies that have

not already done so should improve their policies to allow scientists to communicate freely with the media and the public.

Agencies should also reform their criteria for designating data submitted by companies as “confidential business information,” to make such data more publicly available, and continue to reform classification and declassification processes. Congress should give agencies sufficient resources to respond to open-records and Freedom of Information Act requests.

The public needs to know who is influencing federal decisions. Federal agencies should follow the lead of the White House and institute a disclosure policy for meetings with representatives of outside entities. The administration should create an online database of all federal campaign contributions, lobbying disclosures, and other expenditures that could compromise federal decision making. Congress should require entities with tax-exempt status, such as 501(c)(6), to disclose their membership and funding sources. Congress should pass a law requiring its members to disclose indirect political contributions, and strengthen post-employment rules for members and congressional staff.

To strengthen public accountability, federal agencies should establish clear procedures for addressing and publicly reporting allegations of political interference in science. The Office of Government Ethics, an independent executive branch agency, should be restructured so it can better track and enforce ethics standards at these agencies.

Reforming the Regulatory Process

The administration and Congress should improve the regulatory process. For example, Congress should consult with agencies to remove outdated or unnecessary procedures to make the regulatory process and the allocation of resources more efficient. Congress should also amend the Paperwork Reduction Act to allow agencies to better identify and resolve regulatory gaps or inefficiencies, and ensure that agencies have enough resources to

expand oversight and inspection of research facilities and contractors.

The administration should restrict the White House Office of Management and Budget (OMB) from interfering in the scientific work of executive branch agencies. For its part, the OMB should work with federal agencies to make the regulatory process more transparent, expand dockets tracking regulations under development, and make the dockets more user-friendly. The OMB should issue broad guidelines on how federal regulators will use cost-benefit analysis.

The administration should terminate inappropriate interagency review of scientific documents. Agencies should disclose more information about who is involved and what scientific documents are used in regulatory decisions.

To protect the ability of agencies to carry out science-based laws as Congress intended, the president should develop and publicly release criteria for the use of signing statements, and Congress should scrutinize all signing statements and executive orders for content that oversteps the intent of legislation.

Congress and the administration should ensure that potential adverse effects of products are reported to the federal government, and should create a federal registry of scientific research submitted to agencies, similar to the FDA’s clinical trials registry. Agencies should impose penalties or fines when companies submitting information to the government miss reporting deadlines.

Strengthening Scientific Advice to the Government

Congress should improve the Federal Advisory Committee Act (FACA) to ensure that FACA rules apply to all individuals who substantively influence such committees, limit conflicts of interest among the members, and improve the disclosure of such conflicts. Agencies should track the work of their scientific advisory committees more closely, and meaningfully respond to their findings and recommendations.

Congress should create a mechanism that allows members of Congress to receive timely, policy-relevant, impartial scientific and technological

analysis and advice that will help them make decisions on new initiatives and laws and the allocation of taxpayer dollars.

Federal agencies should set standards for the quality of scientific information submitted by corporations, trade associations, private research companies, unions, and other institutions.

CRYSTALLINE SILICA

Crystalline silica, a basic component of many minerals, is a serious occupational health hazard that causes an irreversible, progressive lung disease.

After 14 years of analysis, the Occupational Safety and Health Administration (OSHA) submitted a rule to the White House in February 2011 to protect workers from silica exposure. The OMB is required to review proposed rules within 90 days, yet nearly a year later, the White House had failed to do so, preventing OSHA from even seeking public input on its proposal. In the interim, industry representatives met numerous times with OMB staff about the standard.



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Strengthening Monitoring and Enforcement

Federal agencies should make the scientific information they gather through data collection programs public, and use it in decision making.

Congress should investigate how reduced or eliminated funding for monitoring and enforcement has undermined the integrity of science.

Beyond Government

Corporations, nonprofits, academic institutions, scientific societies, and the media also have critical roles to play in reducing abuses of science in federal decision making. As a logical extension of federal scientific integrity policies, private-sector stakeholders who contribute to or influence science used in federal policy making should develop or revisit their own policies regarding scientific integrity, ethics, and misconduct.

These institutions should promote honest scientific investigation and open discussion of the results of such research. These institutions should also refrain from actual or perceived acts of scientific misconduct, such as by suppressing or terminating research, censoring scientists, altering the scope of research, or otherwise manipulating scientific information. These institutions should embrace transparency by disclosing sources of funding, and avoid conflicts of interest.

Inappropriate corporate interference in science extends its tentacles into every aspect of federal science-based policy making. Given the unprecedented science-based challenges facing our nation and the world, federal decision makers must have access to the best available science. Addressing this interference will require overcoming high hurdles, but they are not insurmountable. With strong leadership and a sustained commitment, both the federal government and the private sector can rise to the challenge.

This executive summary and the full report are available on the UCS website at www.ucsusa.org/corporateinterference.

The Union of Concerned Scientists is the leading science-based nonprofit working for a healthy environment and a safer world.



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