Independent Science Advice Under Siege: The Value of Federal Advisory Committees for Evidence-based Public Policy

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Introduction:

Federal advisory committees play an indispensable role in providing independent science advice for our government's decision making, sometimes called the "fifth arm of government" (Bybee, 1994). The government relies on this technical advice from scientists outside the government on everything from drug approvals to air pollution standards to appropriate pesticide use. There are over 1,000 advisory panels within the federal government, some of which offer technical scientific advice that may be used by agencies to inform key policy decisions. Some advisory committees are mandated by law, while others are created for ad hoc policy guidance (Ginsberg and Burgat, 2016). Attempts to undermine the objectivity of advisory committees or to delay or halt the work of these advisory committees is one way that political leaders have politicized science and obstructed the ability for independent scientists to inform and review agencies on policy-relevant scientific questions.

This paper will discuss the Federal Advisory Committee Act's successes and failures, focusing specifically on how the Act has been able to balance advisory committees to mitigate conflicts of interest. It will also explore recent activities to alter the composition of advisory committees, specifically under Administrator Scott Pruitt's leadership at the EPA, and whether there is precedent to support the barring of individuals receiving federal grants from serving on advisory committees at those respective agencies. Finally, it will provide recommendations for Congressional action to clarify and improve the Act and best promote the activities of advisory committees, while ensuring that the public is fully engaged and informed.

Advisory committees had been used since at least James Madison's presidency, but Congress had not stepped in to regulate them until 1842 in order to determine funding and need for advisory committees created by President John Tyler. Executive use of advisory committees included seeking advice on conservation, infrastructure needs, health care, and education policy and President Herbert Hoover once described advisory committees as "one of the sound processes for the search, production, and distribution of the truth" and claimed that they made "the fullest use of the best brains and the best judgment and the best leadership in our country" (Bybee, 1994).

While there were executive orders that governed advisory committees through the 20th century, comprehensive legislation covering all federal advisory committees was not successful until the Federal Advisory Committee Act became law in 1972 (GSA, n.d.). The law was issued as a response to concerns that advisory committees that had been formed over the years needed oversight and formal reporting procedures (Ginsberg and Burgat, 2016). One of the specific challenges to the operation of informal advisory committees was too much opportunity for special interests to influence federal decision makers (GAO, 2008).

Although following FACA requirements is mandatory for all agencies, the implementation of the act's requirements is left to the executive branch. Each committee operates according to its charter which is updated every two years to reflect any changes in need or function. Charters include the mission of the FAC, the expected number of annual meetings, the process for ensuring balanced membership, the annual budget and other procedural information. Members of advisory committees are sometimes paid, and terms usually last between two and three years, with the possibility of being renewed for a second term. While not formal policy, it is common practice that committee members who have already been vetted by the agency serve a second term, assuming that their expertise is still required (Ginsberg and Burgat, 2016).

According to the General Services Administration which collects data from the executive branch on its committees, in 2017 there were 1019 active advisory committees, 605 (59.3 percent) required by statute, 252 (24.7%) created by an agency, 181 (17.8 percent) authorized by statute, and 44 (4.3 percent) authorized by presidential statute (n.d.b.). The functions of these committees range in scope, from advising on the grantmaking processes across agencies, weighing the evidence and debate scientific issues that arise at agencies from the safety of a new drug to the best way to handle lead exposure in drinking water, to advising agency heads on specific policy solutions or regulatory negotiations. Overall there are over 50,000 individuals who serve on these committees and help the federal government to decide on reasonable policy solutions or to ensure our country's agencies are able to conduct the science that will inform those policies, on a host of issues (GSA, n.d.b.).

Parsing out Conflicts of Interest and Reaching the "Fairly Balanced" Mandate

FACA requires that all advisory committees be "fairly balanced in terms of the points of view represented and the functions to be performed by the advisory committee but does not provide direction for the way in which agencies should interpret those terms (Federal Advisory Committee Act of 1972). Over time, several courts have found "fairly balanced" unjudiciable, which has meant that it has been mostly up to the discretion of the agency and there is little legal recourse if an apparent violation of the balance provision occurs (Walters, 2012; Brown, 2008). Agencies and advisory committees both vary in their management of conflicts of interests due to the nature and unique needs of each committee; however, all advisory committees have their members disclose their conflicts, as required by the Office of Government Ethics. If a significant conflict of interest exists for a particular advisor, in rare occasions, an agency can submit a waiver to allow them to participate on the committee in spite of the conflict. These would demonstrate that the need for the employee's services outweigh the potential for a conflict of interest (OGE, 2017).

Not only is a fairly balanced committee with minimal and managed conflicts of interest necessary for adequate consensus building, but it is important the public and agency decisionmakers? perceive that these advisory committees are balanced so that their advice achieves maximum weight and credibility. In the GAO's 2004 analysis of the balance of a cross-section of agency advisory committees, the EPA was only one of nine departments and agencies reviewed that consistently collected information on committee members appointed as special government employees and used to it help achieve balance (GAO, 2004).

The Ethics in Government Act, passed in 1978, established the Office of Government Ethics (OGE) to lead the executive brand ethics policy and program oversight, designed to prevent and resolve conflicts of interest in government service, which also applies to special government employees who serve on federal advisory committees. The OGE has issued guidance on how agencies can best collect information on conflicts from SGEs but also on how to establish "fairly balanced" committees. OGE provides a document titled "Standards of Ethical Conduct for Employees of the Executive Branch" that lays out the definition of improper financial ties and details how individual government employees and special government employees can file a COI

waiver if the conflict is deemed to be unlikely to affect the services of the government employee or if on an advisory committee, the need for the services of the individual outweighs the potential for a conflict of interest (OGE, 2017). This office provides guidance for agencies but does not wield strong enforcement power to ensure that they are implementing the ethical requirements of FACA to the best of their ability.

The "fairly balanced" provision was left purposely vague by the Federal Advisory Committee Act, but the following provision helps to counter potential abuse of that ambiguity, stating that "assure that the advice and recommendations of the committee will not be inappropriately influenced by the appointing authority or by any special interest." This is an important distinction as this paper discusses recent actions from the Administrator of the Environmental Protection Agency, Scott Pruitt.

A Case Study in Unwieldy Agency Discretion: Administrator Scott Pruitt's Grants Directive

Administrator Pruitt has spent his time in office seeking advice from industry officials behind closed doors, dodging congressional oversight requests, and failing to be inclusive of the public and press at public events and in decisionmaking (Halper, 2018). His treatment of the agency's 23 federal advisory committees has been called into question as well. A Union of Concerned Scientists analysis found that in 2017, the EPA's scientific advisory committees' meetings and number of members were the lowest they've been since 1997. Over two-thirds (7/10) of EPA's scientific advisory committees failed to meet as many times as their charters directed (Reed, Shulman, Hansel, & Goldman, 2018). This is part of an administration-wide trend, but Pruitt's actions at the EPA will be used as a case study in this paper to talk about the agency's discretion in determining the composition of its advisory committees and how "fairly balanced" should be interpreted.

The advisory committee changes at the EPA began in May 2017, when Scott Pruitt's EPA failed to renew nine members on the Board of Scientific Counselors (BOSC), the advisory committee that reviews the work of the EPA's Office of Research and Development (ORD) on everything from chemical safety to air pollution to hydraulic fracturing. Despite being told that their positions were being renewed, an EPA spokesman confirmed that the academics may instead be replaced with industry experts who better "understand the impact of regulations on the regulated".

community" (Davenport, 2017). In June, BOSC members whose terms would be ending in 2017 and early 2018 were notified by the EPA that their terms would not be renewed and all full committee and subcommittee meetings were cancelled for the rest of the year (Eilperin & Mooney, 2017). This effectively stalled the work of the committee, which was set to begin looking at the EPA's Office of Research and Development's (ORD) plans for the next five years.

The first several months of Administrator Pruitt's command of the EPA included many allusions to conflicted individuals on science advisory panels at the EPA and a blatant disregard of the value of the Science Advisory Board (SAB) through a draft budget memo that estimated the SAB's budget should be cut by 84% for FY 2018 in part due to "an anticipated lower number of peer reviews" (Mooney, 2017). Then, in September, the SAB wrote a letter to Pruitt explaining the value of the committee and asking him to attend their next meeting, to which the committee never received a response (Thorne, 2017).

On October 31, Administrator Pruitt announced a new agency policy that prevents scientists who currently receive EPA grants from serving on the Science Advisory Board, Clean Air Scientific Advisory Committee, and the Board of Scientific Counselors and will likely include other agency FACs (Pruitt, 2017). This policy creates a double standard: scientists who rely on public funding are left out, while industry scientists face no restrictions on service. Once the memo was issued, new membership was announced and the number of industry representatives on the SAB tripled. This was in addition to the individuals from consulting firms or state governments already on the committee. Representatives from these entities have long histories of participating in EPA committees and working closely with the private sector (Reed, Shulman, Hansel, & Goldman, 2018).

The newly constituted SAB will consist of five fewer members than it did before, operating with 42 instead of 47 members. And, according to its new charter, it will also meet fewer times, 6 to 8 instead of 8 to 10 each year (EPA SAB, 2017). While the administration claims they've increased diversity by including representation from more states, the number of women scientists on the committee has been slashed by half from nearly 21 to just 11. The decision not to renew the terms of six individuals who had already been fully vetted and were qualified to serve again

also breaks with precedent. One of those individuals, Dr. Charles Werth, said, "it was my impression that there's more turnover on the board this year because of the desire of the administrator to have more industry representation. Most of the other board members up for renewal after their first term were replaced. It is certainly a break from the past and a changing of the board's representation" (Reed, Shulman, Hansel & Goldman, 2018).

In replacing ousted committee members who chose to keep their funding over staying on the advisory committee, Pruitt chose several individuals with questionable credentials to serve on the committees. Documents from the Senate Environment and Public Works committee found that Pruitt failed to listen to staff who were concerned about the conflicts of interest of certain nominees for the agency's Clean Air Scientific Advisory Committee (CASAC), which goes against protocol for the agency. The individuals in question included a consultant whose clients had included ExxonMobil, the American Chemistry Council, and the American Petroleum Institute, who had a possible financial conflict of interest, appearance of a lack of impartiality, and lacked scientific experience and another individual who was criticized for having "no direct experience in health effects of air pollution." Both were appointed to positions on the committee despite the fact that agency staff called out their lack of expertise and conflicts of interest (U.S. Senate Committee on Environment and Public Works, 2018).

Despite Administrator Pruitt's claims that its advisory committees have been unfairly balanced and not as independent as possible, the agency has a very precise process for vetting nominees for each advisory committee and minimizing conflicts of interest. The Designated Federal Officer for each advisory committee submits an outreach plan on how the nominees will be publicized and how outreach for committee members will look for diverse membership as well as a membership balance plan. Each advisory committee member that is a special government employee must complete financial disclosure forms annually and before he or she works on a particular matter and those forms are vetted for direct financial conflicts of interest and appearances of lack of impartiality. Ethics waivers were not used by the SAB staff office director between 2002 and 2012 (EPA OIG, 2013). Further, a 2017 EPA OIG study found that the EPA's systems of controls to engage and manage the recommendations from all of its scientific

advisory committees were effective, though could do a better job at publishing all agency responses online (EPA OIG, 2017).

The EPA follows OMB's final bulletin on peer review as it pertains to the receipt of an agency grant representing a conflict of interest, which states:

'When an agency awards grants through a competitive process that includes peer review, the agency's potential to influence the scientist's research is limited. As such, when a scientist is awarded a government research grant through an investigator-initiated peer-reviewed competition, there generally should be no question as to that scientist's ability to offer independent scientific advice to the agency on other projects" (OMB, 2005).

Historically, EPA staff would deal with a research grant conflict in the same way as any other financial conflict if a member's research or grant overlapped with work of the committee in some way, and members would be asked to recuse themselves from those conversations. The EPA's peer review handbook offers guidance for how the EPA should address impartiality and independence on its peer review panels and states that the EPA should make every effort to ensure reviewers are independent and do not have an appearance of a lack of impartiality (EPA, 2015).

Not only does the OMB peer review policy and EPA's own handbook support the inclusion of individuals receiving agency grants on advisory committees, but there is at least one example of legal precedent at another federal agency, and as of this writing, there has been no other agency directive with a similar objective (OMB, 2005; EPA, 2015). In *Cargill v. United States*, the court decided that membership on a NIOSH advisory committee while being receiving grant money from HHS did not represent a conflict of interest "susceptible to improper influence." In fact, in order to have the appropriate expertise on the advisory committee, it would make sense to include individuals who had worked for or been awarded grants from HHS. They wrote, "Working for or receiving a grant from HHS, or co-authoring a paper with a person affiliated with the department, does not impair a scientist's ability to provide technical, scientific peer review of a study sponsored by HHS or one of its agencies. Moreover, if HHS were required to exclude from peer review committees all scientists who somehow had been affiliated with the

department, it would have to eliminate many of those most qualified to give advice" (*Cargill v. U.S.*, 1999)

Pruitt did not give an example of any EPA grant-funded advisory committee member ever having a conflict of interest that became problematic or represented interference in the process, which renders his directive arbitrary. And given that his removal of grant-funded scientists allowed the appointment of individuals who had been flagged by EPA staff as having troublesome conflicts of interest, makes it clear that the directive is not serving to "fairly balance" the committee in practice. Ultimately, Administrator Pruitt has sought to solve a problem that never existed. Not only were conflicts of interest managed well in the past, but the agency was typically very engaged with advisory committees in a manner that is not happening under Pruitt's leadership.

Hollowing out independent science capacity from democratic decision making

Administrator Pruitt's directive enforces a double standard: banning independent scientists who rely on public funding from providing scientific advice while giving those with direct financial conflicts of interest a free pass. The Environmental Protection Agency under Scott Pruitt's direction already has a reputation for more fossil fuel and chemical industry lobbyists influencing policy decisions, whether allowed by President Trump's ethics executive order or not. It is evident that by barring EPA-funded academic scientists, Pruitt is seeking to make room for more industry influence in the agency's science advice system.

EPA grants are funded on the basis of merit and promise and after a highly competitive process, and recipients tend to be the most knowledgeable experts on the issues that the EPA is supposed to address: protecting the public from environmental and public health threats. Replacing independent experts who have research experience with individuals who have financial incentives to skew the scientific analysis in the direction of the companies they represent, is in direct opposition to intent of FACA and the mission of the EPA. A diversity of expertise, not of viewpoints, is the way in which the EPA has typically balanced its committees in the past.

It is also important to understand the reason why agency grants have not and should not be considered conflicts of interest in the same way that an individual employed by a private company would be. A principal investigator of an EPA grant does not receive award dollars in

the same way that an industry representative receives a salary from its employer. The money goes toward all of the pieces that feed into a research project, such as equipment, support staff, graduate students, and scientific materials. So, Administrator Pruitt's assertion that committee members at EPA's 22 advisory committees "received" over \$77 million from EPA grants is a clear overstatement that fails to account for the fact that this money actually goes into research that benefits the public interest, potentially meaning millions of dollars of benefits for the US economy (Pruitt, 2017).

Second, there is no incentive for an EPA grant-funded scientist to have a particular view on science advisory board decisions akin to the financial interest of a company representative pushing for a particular policy outcome. Current or future funding is not correlated with a scientist's work with the advisory board. While it of course would be expected that the grant recipient would recuse themselves from issues specific to their grant, at-large funding from the agency does not preclude the researcher's ability to remain objective as they conduct peer review and examine other charge questions from the Administrator. In fact, the vast majority of advisory committee work is likely to far removed from the specific research questions any given committee member will be working on.

Scientists who receive EPA grants tend to be those with the most expertise on certain topic areas and their exclusion would result in the agency not receiving the best science advice. As current SAB member, William Schlesinger stated in March 2018, "If a subcommittee working on a particular issue had enough industry people and naysayers cast enough doubt, the report that went back to the administrator would be rather vague; it would be equivocal, probably not be the basis for taking action. And a lot of times, that is what the industry wants on a subject: no change or minimal regulation" (Waldman, 2018). The new members of the committee might be more likely to play up uncertainty on the science, obstructing the consensus-building process so there is inactivity from the advisory committee and the EPA can make entirely political decisions, rather than those grounded in science.

Administrator Pruitt has never provided an example of a EPA-grant-funded advisory committee whose service was compromised in some way as a result of that funding. In contrast, there are several examples of industry-affiliated advisory committee membership impacting the way in which committees function and their ability to objectively weigh the science.

In 1998, the EPA charged its scientific advisory committee with determining risks posed by 1,3-butadiene, a compound used to make synthetic rubber and plastics and a by-product of cigarette smoke and gasoline combustion. The chemical's carcinogenicity has been known for some time. An investigation by the Government Accountability Office found that the EPA had failed to investigate potential conflicts of interest (GAO, 2001). Many panelists worked for, consulted for, or otherwise owned stock in companies affected by the policy and the committee ultimately failed to classify the compound as a human carcinogen under EPA standards (Infante, 2005; Sass, 2005).

In the summer of 2002, as the Advisory Committee on Childhood Lead Poisoning Prevention at the CDC was preparing to consider a revision to the federal standard for lead poisoning, Bush administration officials intervened to reject the nominees to the committee selected by CDC staff scientists. They replaced them with five new members and forced the resignation of at least one existing committee member. All five new appointees were on record as opposing a stricter federal lead poisoning standard. A congressional review soon uncovered that at least two of the new appointees had financial ties to the lead-paint industry and thus a direct conflict of interest. It further came to light that these appointees had first been contacted about serving on the committee not by the administration but by representatives of the lead-paint industry. The blatant intrusion of industry marked a clear conflict of interest, especially for a scientific panel tasked with advising the federal government about how to protect children's health most effectively (Goldman et al., 2017).

Pruitt's directive allowing individuals from regulated industry to take the place of academic scientists who are receiving EPA grants is in effect going against the general principles of government ethics as laid out by OGE, including "employees shall not use public office for private gain" and "employees shall act impartially and not give preferential treatment to any private organization or individual" (OGE, n.d.) Not only is this sentiment expressed by OGE, but it is included in the language of FACA. Despite Administrator Pruitt and his counsel's argument that, "EPA's advisory committee appointments are committed to agency discretion and nonjusticiable," the law states that FACs must "not be inappropriately influenced by the appointing authority or by any special interest, but will instead be the result of the advisory committee's independent judgment," it additionally states that this "shall be followed by the

President, agency heads, or other Federal officials in creating an advisory committee" (Federal Advisory Committee Act, 1972). While FACA grants discretion to agency heads to determine the composition of advisory committees, it certainly does not condone the preferential membership of private sector employees over government-grant-funded academic scientists, especially if those members have direct financial conflicts of interest that may interfere with the objectivity of a committee.

Public policy and federalism: what do compromised committees mean for an informed federal government

The value of federal advisory committees has been understood by administrations dating back to the Madison administration (Bybee, 1994). FACs have been used by presidents and agency heads to more critically think about and make decisions that incorporate input from a broad representation of individuals. The use of advisory committees should be encouraged, as long as the laws are followed and the public can trust that they are operating ethically and leading to policy outcomes that improve public health and safety, not advance the agenda of special interests. There of course must be a balance of governance with advisory committees, the executive branch may create these committees but their operation is bounded by congressional statute and Congress has the ability to hold the President and agency heads accountable for ethical behavior.

Pruitt says that his policy change was in the name of "cooperative federalism" being more inclusive of individuals from state governments, but that is not a requirement under FACA (Pruitt, 2017). Increasing state representation does not have to preclude service from individuals who have received EPA grants. Administrator Pruitt is using cooperative federalism as cover for an arbitrary directive to change the representation to better suit the policy goals for the administration. This was confirmed by his spokesperson who told reporters that advisory committee replacements should better "understand the impact of regulations on the regulated community" (Davenport, 2017). Nor will turnover promote "fresh perspectives" on the committee as Pruitt claims (Pruitt, 2017a). The staff office told the OIG in the past that in their view, "subsequent panels benefit from the experience and working knowledge providing by having some of the previous panel members serve on the next panel" meaning that institutional knowledge is overall helpful for the committee to be most productive (EPA OIG, 2013).

Not only will Pruitt's new order not serve to "strengthen and improve the independence, diversity and breadth of participation on EPA federal advisory committees" as he claims, but it sets a dangerous policy precedent for other agency heads looking to alter advisory committees in a similar fashion (Pruitt, 2017b). As Wren-Lewis (2010) describes, the more discretion a regulator has, "the greater the potential for capture." Pruitt's directive which has effectively increased regulatory capture of the federal government can have serious ramifications. As explained by Borges (2017), "the achievement of regulatory objectives can be jeopardized by the existence of interest groups that seek to condition regulatory action so that regulators can make decisions favorable to the goals of these interest groups." Ultimately, it threatens to decrease public trust in the work of advisory committees as just another tool of special interests to help guide policy toward protecting corporate bottom lines over the public interest.

Conclusion

In conclusion, while the operations of federal advisory committees vary depending on the agency, the EPA has in the past been careful and transparent about its own activities to mitigate conflicts to preserve the integrity of its advisory committees. Thus, Administrator Pruitt's directive, which has already begun to shift the composition of advisory committees at the EPA, is an unprecedented move unsupported by FACA, other agency history, and case law. The directive will only serve to promote corporate capture of the government's external advisors. Congress should work to strengthen FACA so as to avoid sweeping agency-wide directives that misconstrue the intent of the law, agencies should carefully eliminate conflicts of interest on advisory committees to restore public trust in our government, the GAO should continue to hold agencies accountable for their responsibilities, and the Office of Government Ethics should ensure that agencies understand what a conflict of interest is and is not and that that is reflected in their membership balance plans and appointment processes.

Specifically, the GAO should continue its investigation into Pruitt's directive and the activities of advisory committees since he began leading the agency (Cama, 2018). Additionally, Congress should amend FACA to help increase transparency and mitigate conflicts that may arise. Specifically these amendments would require the public announcement by agencies of their intent to form a new scientific advisory committee or to select new members for an existing committee, solicitation of stakeholder input on the charter of the committee, document concrete

steps to ensure that inappropriate criteria such as party affiliation and political opinions are never part of the process for selecting members of scientific committees, publish criteria for selecting committee members and solicitation of nominations for committee membership, identify the process used for committee formation, including how agencies screen members and how they assess committees for balance members of advisory committees. Congress should also consider requiring that financial disclosure forms for special government employees serving on advisory committees be made publicly available.

The OGE should work with agencies to define explicitly what constitutes a conflict of interest and establish transparent guidelines about the degree to which a conflict of interest would disqualify nominees from participating in a committee.

It is also important not to set precedent for the exclusion of scientists on advisory committees who have received government funding for scientific work or who have taken public positions on issues. Having a point of view on policy or having received federal research funding does not preclude an objective assessment of the scientific information presented to a committee. Further, a scientist's membership in a scientific or civil association should not be considered evidence of bias, even if that association has a stated policy agenda.

Agencies should track the work of their scientific advisory committees and respond to their findings and recommendations and establish and enforce clear policies for how to incorporate committee findings and recommendations into agency decision making. Transparency should be a priority for all agency advisory committees, and public documentation of any decision to overrule the recommendations of a scientific advisory committee should be mandatory.

A robust advisory committee system is essential in ensuring that policymakers have access to a diverse set of viewpoints and expertise that can feed into evidence-based decisions that protect public health and safety. Well-balanced and inclusive committees will serve the best interest of the public in contrast to those that are hand-selected to have specific agendas that will undermine the system and result in distrust of the federal government. Improvements to FACA and enhanced Congressional oversight of agency leadership activities surrounding advisory committees will help to ensure that this vital arm of government continues to play a valuable role in public policy.

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