

# THE UPSIDE DOWN: A NEW REALITY FOR SCIENCE AT THE EPA AND ITS IMPACT ON ENVIRONMENTAL JUSTICE

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*Because of changes to EPA that began under the leadership of former Administrator Pruitt, many career scientists are arguing that science is increasingly under attack. These changes have resulted in increased secrecy within the agency, the systematic removal of academic scientists from key advisory roles, and a 60 percent reduction in enforcement. Many are wondering what the Agency has become and whether it can still fulfill its primary mission, which is to protect environmental and human health, particularly since Andrew Wheeler has followed in Scott Pruitt's footsteps as the Acting Administrator of EPA.*

*This Article examines the significance of this policy shift at EPA, discussing how we can expect a diminished role of science in environmental decisionmaking to impact environmental justice. This Article hypothesizes that we will witness a dramatic increase in environmental harms to vulnerable populations that will likely go unchecked, and further, explores how to address these issues when science is largely becoming beholden to a politically divisive culture of distrust and mistruths.*

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## INTRODUCTION

The Upside Down is “like the ‘Vale of Shadows,’” said Dustin as he reached for his Dungeons and Dragons guidebook, “[it] is a dimension that is a dark reflection or an echo of our world. . . . It is right next to you and you don’t even see it.”<sup>1</sup>

On March 8, 2017, Mustafa Santiago Ali submitted his letter of resignation to Scott Pruitt, the Trump Administration’s newly appointed EPA Administrator.<sup>2</sup> After a twenty four-year career with EPA, the senior environmental justice official could not

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<sup>1</sup> *Stranger Things, Season 1, Chapter 5: The Flea and the Acrobat* (Netflix Broadcast, July 2016).

<sup>2</sup> See Brady Dennis, *EPA Environmental Justice Leader Resigns, Amid White House Plans to Dismantle Program*, WASH. POST (Mar. 9, 2017), <https://www.washingtonpost.com/news/energy-environment/wp/2017/03/09/EPAs-environmental-justice-leader-steps-down-amid-white-house-plans-to-dismantle-program/>.

condone the Administration's new approach.<sup>3</sup> Ali helped found EPA's environmental justice office in the 1990s and worked as a key advisor to agency administrators under both Republican and Democratic administrations.<sup>4</sup> After two decades of environmental justice work, he became concerned as he witnessed a significantly different approach to environmental policy under the Trump Administration.<sup>5</sup> When asked about that difference, Ali commented:

With all the previous administrations, there were at least some conversations that were happening about the decisions they were going to make. . . . I've worked for a number of parties, both Democrat and Republican, and I never saw what seemed to be a lack of engagement, some closed-mindedness, and that puts you in a position where you are not going to be able to fully protect the public health and environment of our country in general, and specifically of our most vulnerable communities.<sup>6</sup>

Ali's resignation is only part of an avalanche of changes happening inside of a new EPA, which seems to exist in an alternate reality that is void of science and policy aimed at protecting the public. The new veil of secrecy at the Agency includes a soundproof booth,<sup>7</sup> delayed releases of the Administrator's meetings,<sup>8</sup> and even website scrubbing.<sup>9</sup> The signs of disregard for scientific

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<sup>3</sup> See *id.*

<sup>4</sup> See *id.*

<sup>5</sup> See Natasha Geiling, *EPA Environmental Justice Leader on His Resignation: 'I Needed to Stand up,'* THINKPROGRESS (Mar. 14, 2017), <https://thinkprogress.org/mustafa-ali-environmental-justice-EPA-trump-3d4cf00f558a/>.

<sup>6</sup> *Id.*

<sup>7</sup> See Lisa Friedman, *E.P.A. to Spend Nearly \$25,000 on a Soundproof Booth for Pruitt*, N.Y. TIMES (Sept. 26, 2017), <https://www.nytimes.com/2017/09/26/climate/pruitt-epa.html>; Brady Dennis & Juliet Eilperin, *Scott Pruitt's \$43,000 Soundproof Phone Booth Violated Spending Laws, Federal Watchdog Finds*, WASH. POST (Apr. 16, 2018), <https://www.washingtonpost.com/news/energy-environment/wp/2018/04/16/scott-pruitts-43000-soundproof-phone-booth-violated-spending-laws-federal-watchdog-finds/>.

<sup>8</sup> See Eric Lipton & Lisa Friedman, *E.P.A. Emails Show an Effort to Shield Pruitt from Public Scrutiny*, N.Y. TIMES (May 8, 2018), <https://www.nytimes.com/2018/05/07/climate/epa-pruitt-emails-secrecy.html>.

<sup>9</sup> See Chris Mooney & Juliet Eilperin, *EPA Website Removes Climate Science Site from Public View After Two Decades*, WASH. POST (Apr. 29, 2017), <https://www.washingtonpost.com/news/energy-environment/wp/2017/04/28/epa-website-removes-climate-science-site-from-public-view-after-two-decades/>; see generally Coral Davenport & Eric Lipton, *Staff Tells of Rampant Secrecy*

expertise are unprecedented and portend what could be a setback in environmental protection with reverberating impacts on vulnerable communities. The Trump Administration's intention to undermine the work and mission of EPA has been clear since an early proposed EPA budget cut of more than \$2 billion that would force the Agency to reduce its staff of nearly 15,000 employees, many of whom are scientists, by as much as 20 percent.<sup>10</sup> These planned cuts would impact minority and poorer communities who have already suffered disproportionately from toxic pollution due to activities at neighboring industrial sites.<sup>11</sup>

Historically, Ali's environmental justice office was tasked with reducing the disproportionate pollution exposure to these communities through grants to clean up contamination from nearby industrial facilities, sometimes within eyeshot of these neighborhoods.<sup>12</sup> That directive is likely to change if an underfunded and understaffed EPA pulls back from enforcing pollution control. The result is that environmental inequities will increase, and these inequities will likely go unnoticed or will be ignored.<sup>13</sup>

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at *Pruitt's E.P.A.*, N.Y. TIMES (Aug. 11, 2017), <https://www.nytimes.com/2017/08/11/us/politics/scott-pruitt-epa.html>.

<sup>10</sup> See Juliet Eilperin and Brady Dennis, *White House Eyes Plan to Cut EPA Staff by One-Fifth, Eliminating Key Programs*, WASH. POST (Mar. 1, 2017), <https://www.washingtonpost.com/news/energy-environment/wp/2017/03/01/white-house-proposes-cutting-EPA-staff-by-one-fifth-eliminating-key-programs/>. On July 19, 2018, the House passed a modest budget cut of \$100 million dollars. As of July 2018, Senate was considering its version. See Jaren Paben, *House Passes Slight Cut to EPA Budget*, RESOURCE RECYCLING (July 24, 2018), <https://resource-recycling.com/recycling/2018/07/24/house-passes-slight-cut-to-epa-budget/>.

<sup>11</sup> See Oliver Milman, *'Just Racist': EPA Cuts Will Hit Black and Hispanic Communities the Hardest*, THE GUARDIAN (Mar. 3, 2017), <https://www.theguardian.com/environment/2017/mar/03/epa-environment-budget-cuts-pollution-justice-office>.

<sup>12</sup> See *id.*

<sup>13</sup> It is true that EPA's budget has steadily increased from \$5.4 billion in 1979 to \$8.2 billion in 2017. However, when adjusted for inflation, the 2017 value only equates to \$2.4 billion of the 1979 budget. Meanwhile the U.S. population has increased by 100 million, the economy has doubled in size, and Congress has added many responsibilities with over a dozen new (and much needed) federal environmental laws. This is compared to other federal agency budgets, which have increased by an average of 26 percent. See Keith Haby, *EPA's Budget has Been Devastated for Decades: Here's the Math*, THE HILL (Jan. 24, 2018), <http://thehill.com/opinion/energy-environment/370334-epas-budget-has-been-devastated-for-decades-heres-the-math>.

Further, if EPA continues to push environmental regulatory responsibilities onto state environmental agencies, it is likely that both class and race-based disparities in regulatory enforcement will increase in states where resources for enforcement are cut in favor of “saving” money or jobs.<sup>14</sup> These state agencies have, at times, operated with little oversight by EPA’s ten regional offices. Recently, we have witnessed this exact scenario play out in Flint, Michigan, as a lack of oversight by EPA Region 5 was a significant contributing factor to the crisis.<sup>15</sup>

Environmental racism is only curbed when federal oversight is in place and communities have access to education, grant money for local remediation, and representation in the decisionmaking process.<sup>16</sup> In order to have an effective voice in the regulatory process, residents of all communities should have access to scientific information and other resources in order to understand policy decisions.<sup>17</sup>

This Article argues that when the institution charged by Congress with protecting the country’s environmental and human health<sup>18</sup> systematically diminishes the role of scientists in policymaking, reduces transparency, and vows to end the war on industry,<sup>19</sup> it has arguably failed in its mission. And, as a result, this agency will no longer be able to protect the most vulnerable

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<sup>14</sup> See David Konisky, *How Trump’s EPA Could Undermine Environmental Justice*, GRIST (Dec. 9, 2016), <https://grist.org/article/how-trumps-epa-could-undermine-environmental-justice/>; see also David Konisky & Christopher Reenock, *Compliance Bias and Environmental (In)Justice*, 75(2) J. OF POLITICS 506 (2013).

<sup>15</sup> See EPA, OFFICE OF INSPECTOR GENERAL, MANAGEMENT ALERT: DRINKING WATER CONTAMINATION IN FLINT, MICHIGAN, DEMONSTRATES A NEED TO CLARIFY EPA AUTHORITY TO ISSUE EMERGENCY ORDERS TO PROTECT THE PUBLIC (Oct. 20, 2016), [https://www.epa.gov/sites/production/files/2016-10/documents/\\_epaig\\_20161020-17-p-0004.pdf](https://www.epa.gov/sites/production/files/2016-10/documents/_epaig_20161020-17-p-0004.pdf); see also FLINT WATER ADVISORY TASK FORCE, FINAL REPORT (Mar. 21, 2016), [https://www.michigan.gov/documents/snyder/FWATF\\_FINAL\\_REPORT\\_21M arch2016\\_517805\\_7.pdf](https://www.michigan.gov/documents/snyder/FWATF_FINAL_REPORT_21M arch2016_517805_7.pdf).

<sup>16</sup> See JAMES SALZMAN & BARTON H. THOMPSON, JR., ENVIRONMENTAL LAW & POLICY 43 (4th ed. 2014).

<sup>17</sup> See *id.* at 44.

<sup>18</sup> See *Our Mission and What We Do*, EPA, <https://www.epa.gov/aboutepa/our-mission-and-what-we-do> (last visited Feb. 25, 2018).

<sup>19</sup> See Brady Dennis and Juliet Eilperin, *EPA Chief Scott Pruitt Tells Coal Miners He Will Repeal Power Plant Rule Tuesday: “The War Against Coal is Over,”* WASH. POST (Oct. 9, 2017), <https://www.washingtonpost.com/news/energy-environment/wp/2017/10/09/pruitt-tells-coal-miners-he-will-repeal-power-plant-rule-tuesday-the-war-on-coal-is-over/>.

communities and ecosystems. When science is methodically removed from the equation<sup>20</sup> by those who are closest to industry,<sup>21</sup> environmental protection is reduced to a ghostly existence where pollution will go unchecked, and the environment will be an echo of what it once was: a darker version of reality—or the upside down. And, the first to suffer will be those who have historically been subjected to environmental discrimination with little attention. These populations have been those of color: African-Americans, Latinos, Native Americans, and Asian and Pacific Islanders who disproportionately live and work in the most polluted environments.<sup>22</sup>

### I. THE ATTACK ON SCIENCE

Scientific Integrity (n): “[T]he adherence by scientists and their institutions to honest and verifiable methods in proposing, performing, evaluating, and reporting research activities.”  
-National Academy of Sciences<sup>23</sup>

Integrity (n): The quality of being honest and having strong moral principles.  
-Oxford Living Dictionaries<sup>24</sup>

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<sup>20</sup> In August 2018, the Union of Concerned Scientists and the Center for Survey Statistics of Methodology at Iowa State University released a survey of more than 63,000 scientists employed at sixteen agencies under the Trump Administration. Over 50 percent of the scientists surveyed believed that consideration of “political interests” hindered science-based decisions. One specific example involved 47 percent of scientists at the National Park Service and 35 percent of scientists at EPA who said they had been asked to remove the term “climate change” from their work. *See* UNION OF CONCERNED SCIENTISTS, SCIENCE UNDER PRESIDENT TRUMP 5, 8 (2018), <https://www.ucsusa.org/sites/default/files/attach/2018/08/science-under-trump-report.pdf>.

<sup>21</sup> *See* Coral Davenport, *Counseled by Industry, Not Staff, E.P.A. Chief Is Off to a Blazing Start*, N.Y. TIMES (July 2, 2017), <https://www.nytimes.com/2017/07/01/us/politics/trump-epa-chief-pruitt-regulations-climate-change.html>. According to the New York Times, prior to assuming his role as Administrator, as Oklahoma’s Attorney General, Mr. Pruitt filed 14 lawsuits against EPA. *See id.* Mr. Pruitt also relies on a small network of lobbyists and industry officials with regard to decision-and policy-making functions. *See id.*

<sup>22</sup> *See* Brian Palmer, *The History of Environmental Justice in Five Minutes*, NAT. RES. DEF. COUNCIL (May 18, 2016), <https://www.nrdc.org/stories/history-environmental-justice-five-minutes>.

<sup>23</sup> NATIONAL ACADEMY OF SCIENCES ET AL., RESPONSIBLE SCIENCE, VOLUME I: ENSURING THE INTEGRITY OF THE RESEARCH PROCESS 17 (1993).

<sup>24</sup> *Integrity*, OXFORD LIVING DICTIONARIES, <https://en.oxforddictionaries>.

The concept of environmental justice can best be measured by scientific studies of the effects of pollution on vulnerable populations.<sup>25</sup> Science sheds light on disproportionate environmental risks in a way that is measurable and that provides public assurance that the process is honest, truthful, and reliable.<sup>26</sup> Politicians, however, are increasingly questioning the integrity of the scientists who are involved in assessing risk; working to sow doubt in the minds of political constituents and the public.<sup>27</sup>

But, there is a fundamental difference in how scientists and politicians work. Scientists aim to discover the truth.<sup>28</sup> Indeed, many believe that science “is the pinnacle of human achievement not because of its actual successes but in virtue of the fact that its practice, both in attaining truth and in lapsing into error, is thoroughly informed by reason.”<sup>29</sup> These virtuous thoughts are the very ideals that scientists should, and for the most part do, ascribe to without fault.<sup>30</sup> However, when scientists become involved in the administrative rulemaking process, science becomes politicized to a certain extent.

With the Trump Administration’s efforts to remove objective oversight of the scientific process, it is likely that the public’s trust in science will continue to erode. The slow demise of public’s trust

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com/definition/integrity (last visited Oct. 31, 2018).

<sup>25</sup> Various authorities have acknowledged how difficult it is to quantify inequity among communities due to various qualitative and quantitative measures. More specifically, regulatory analytical tools are not always well-suited to determine which inequalities are unjust or unfair, although qualitatively, these can certainly be measured. See Harper et al., *Using Inequality Measures to Incorporate Environmental Justice into Regulatory Analysis*, 10 INT’L J. ENVTL. RESEARCH & PUB. HEALTH 4039 (2013), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799504/pdf/ijerph-10-04039.pdf>.

<sup>26</sup> Ken Sexton, *The Role of Scientific Research in Risk Assessment and Risk Management Decisions*, 106 OTOLARYNGOLOGY—HEAD AND NECK SURGERY 638 (1992).

<sup>27</sup> See Coral Davenport, *E.P.A. Chief Doubts Consensus View of Climate Change*, N.Y. TIMES (Mar. 10, 2017), <https://www.nytimes.com/2017/03/09/us/politics/epa-scott-pruitt-global-warming.html>.

<sup>28</sup> See PHILIP KITCHER, *THE ADVANCEMENT OF SCIENCE* 3 (1993).

<sup>29</sup> *Id.* at 4.

<sup>30</sup> Although there have certainly been instances in history, like involvement in eugenics, or the pursuit of the “perfect human race” where scientists failed immeasurably in meeting this ideal. See Karen Norrgard, *Human Testing, the Eugenics Movement, and IRBs*, SCITABLE BY NATURE EDUC. (2008), <https://www.nature.com/scitable/topicpage/human-testing-the-eugenics-movement-and-irbs-724>.

in science has occurred over the past fifteen years, most notably with the Bush Administration's intervention in the scientific processes underlying environmental policy and rulemaking and its subsequent distortion or suppression of scientific findings.<sup>31</sup> This included withholding comments from scientists at the U.S. Fish and Wildlife Service on the destructive impacts of proposed regulatory changes, stacking scientific advisory committees with unqualified members who had industry ties, altering websites, and suppressing agency reports.<sup>32</sup> Most notably, in 2003, the White House infamously edited a discussion of climate change in EPA's *Draft Report on the Environment*.<sup>33</sup> At that time, EPA's scientists complained that the altered draft "no longer accurately represented scientific consensus on climate change," which ultimately led the Agency to eliminate the discussion in its entirety from the report.<sup>34</sup>

The distortion of scientific findings extends beyond policy to legislation also meant to protect environmental and human health. In 2005, Congress exempted hydraulic fracturing (fracking) from EPA oversight under the 1974 Safe Drinking Water Act based on a controversial 2002 draft EPA study<sup>35</sup> which found that fracking

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<sup>31</sup> See UNITED STATES HOUSE OF REPRESENTATIVES COMM. ON GOV'T REFORM – MINORITY STAFF SPECIAL INVESTIGATIONS DIV., POLITICS AND SCIENCE IN THE BUSH ADMINISTRATION (2003), i-v.

<sup>32</sup> See *id.* at iii–iv.

<sup>33</sup> See *id.* at iv. Philip Cooney, the CEQ chief of staff and a 15-year veteran of the American Petroleum Institute, made 294 edits to the administration's 364-page *Strategic Plan for the U.S. Climate Change Science Program* posted on July 24, 2003, "to exaggerate or emphasize scientific uncertainties or to deemphasize or diminish the importance of the human role in global warming." David Biello, *Editing Scientists: Science and Policy at the White House: How Much do Policymakers Shape the Science that Comes out of Government Agencies?*, SCI. AM. (Oct. 22, 2009), <https://www.scientificamerican.com/article/white-house-editing-scientists/>.

<sup>34</sup> *Id.* (finding in fact that a former EPA Administrator in both the Nixon and Ford Administrations commented, "I can state categorically that there was never such a White House intrusion into the business of the EPA during my tenure.")

<sup>35</sup> See John Hurdle, *EPA Science Advisory Board Sharpens Criticism of Fracking Report*, State Impact, NPR (Aug. 11, 2016, 7:26 PM), <https://stateimpact.npr.org/pennsylvania/2016/08/11/EPA-science-advisory-board-sharpens-criticism-of-fracking-report/>. On August 11, 2016, 5 months before President Trump took office, the EPA Scientific Advisory Board called into question EPA's controversial fracking report, which concluded that there were "no widespread, systemic impacts" on drinking water. The report, which was released in June 2015, was criticized by the Board. *Id.*; see also Peter S. Thorne and Dr. David A. Dzombak, *U.S. EPA Scientific Advisory Board Report 2* (Aug. 11, 2016).

posed a low risk to drinking water supplies.<sup>36</sup> Many of these fracking sites are located in rural areas, where much of the population lives below the poverty level, triggering environmental justice concerns.<sup>37</sup>

We have also seen profound impacts on environmental justice, particularly as it relates to safe drinking water, with industry insiders replacing scientists on scientific advisory boards. In the early 1990s, while high levels of lead in drinking water was a rising concern, the George H.W. Bush Administration replaced three national experts in lead poisoning on the Advisory Committee on Childhood Lead Poisoning Prevention with several individuals who had ties to the lead industry.<sup>38</sup> In fact, one of the appointees was a leading industry consultant, who had previously testified that a lead level that was seven times higher than the current Center for Disease Control (CDC) recommendations was safe for children's brains.<sup>39</sup> Over the following decade, little changed in the regulations that were meant to protect children from lead in drinking water. Arguably, it was that lack of urgency in revising the Lead and Copper Rule to better reflect the most recent scientific evidence of risk, along with the economic crisis and agency apathy, that culminated in the environmental justice crisis in Flint, Michigan in 2015.<sup>40</sup>

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<sup>36</sup> See Energy Policy Act (EPA) of 2005, Pub. L. No. 109-58, § 322 (2005). Congress amended the definition of "underground injection" in the Safe Drinking Water Act to exclude the injection of fluids or propping agents other than diesel fuels that were related to hydraulic fracturing operations which included oil, gas, or geothermal production activities. This exemption is better known as the "Halliburton Loophole," which was arguably created at the behest of then Vice-President Dick Cheney, a former CEO of Halliburton. *See id.*

<sup>37</sup> See Marie Cusick, *Don't Frack the Rich: Comment Puts Focus On Environmental Justice*, STATE IMPACT PA. (June 6, 2016, 5:09 PM), <https://stateimpact.npr.org/pennsylvania/2016/06/06/dont-frack-the-rich-comment-puts-focus-on-environmental-justice/>.

<sup>38</sup> See UNITED STATES HOUSE OF REPRESENTATIVES COMMITTEE ON GOVERNMENT REFORM, *supra* note 31, at ii.

<sup>39</sup> *See id.* While the Lead and Copper Rule has currently set an action level of .15 ppb for lead in drinking water, the Centers for Disease Control and Prevention (CDC) and the American Academy of Pediatrics (AAP) have stated that there is no safe level of lead. *See What do Parents Need to Know to Protect Their Children?*, CHILDHOOD LEAD POISONING PREVENTION PROGRAM, CTR FOR DISEASE CONTROL AND PREVENTION, [https://www.cdc.gov/nceh/lead/acclpp/blood\\_lead\\_levels.htm](https://www.cdc.gov/nceh/lead/acclpp/blood_lead_levels.htm) (last updated May 17, 2017).

<sup>40</sup> See Brie D. Sherwin, *Pride and Prejudice and Administrative Zombies: How Economic Woes, Outdated Environmental Regulations, and*

Recently, however, under Acting Administrator Wheeler's watch, the apathy has been replaced with an outward rejection of EPA scientists who are meant to advocate for children. Dr. Ruth Etzel, a leading pediatrician and epidemiologist in the field of children's health for over thirty years, was put on administrative leave on September 25, 2018.<sup>41</sup> John Konkis, an EPA spokesman, refused to provide a reason for her leave.<sup>42</sup> Her office, the Department of Children's Health Protection, is, by design, meant to inform the Agency "on the specific health and environmental-protection needs of children," who often require more protective standards than adults.<sup>43</sup> In addition to placing Dr. Etzel on leave, EPA also stalled a year-long project, headed by Etzel's former office, to develop an interagency effort to reduce children's lead exposure.<sup>44</sup>

And, it was not long after President Trump took office that scientific data and reports quietly disappeared within EPA. Mere moments after President Trump's inauguration, the official website of the White House deleted almost all mention of climate change, save one: the new President's vow to eliminate climate change policies created by the Obama Administration.<sup>45</sup> But, although the policy changes were alarming, scientists were even more concerned about the disappearance of climate change data gathered and stored by administrative agencies for years, which is considered some of the most complete and solid data in the world.<sup>46</sup> Since his election, a minimum of fifty academic scientists have taken to preserving and monitoring data stored on government websites like those of EPA, NASA, and National

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*State Exceptionalism Failed Flint, Michigan*, 88(3) U. COLO. L. REV. 653 (2017).

<sup>41</sup> See Coral Davenport, *E.P.A. Places the Head of its Office of Children's Health on Leave*, N.Y. TIMES (Sept. 26, 2018), <https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html>.

<sup>42</sup> See *id.*

<sup>43</sup> See *id.*

<sup>44</sup> See Joe Romm, *Trump's EPA Makes 'Sneaky' Move to Hamstring its Children's Health Office*, THINKPROGRESS (Sept. 26, 2017, 12:08 PM), <https://thinkprogress.org/trump-epas-sneaky-new-move-in-its-war-on-childrens-health-74fc9f55ce84/>.

<sup>45</sup> See Coral Davenport, *With Trump in Charge, Climate Change References Purged from Website*, N.Y. TIMES (Jan. 21, 2017), <https://www.nytimes.com/2017/01/20/us/politics/trump-white-house-website.html>.

<sup>46</sup> See *id.*

Ocean and Atmospheric Administration (NOAA).<sup>47</sup>

The disregard for scientific methods is not limited to policy changes on government websites. In May 2017, under Administrator Pruitt, EPA dismissed at least five of the eighteen members of the Agency's Scientific Advisory Board,<sup>48</sup> whose key purpose is to provide objective oversight of the highly-technical research collected and reviewed by EPA scientists and draft regulations based on that research that cover issues from CO<sub>2</sub> emissions to pollution discharges into waterways.<sup>49</sup> The firings happened, as a spokesman for Mr. Pruitt stated, because he planned to replace the academic research scientists with people “who understand the impact of regulations on the regulated community”—in other words, industry representatives from the exact entities that EPA is meant to regulate.<sup>50</sup>

Although industry representation on advisory panels is not unusual, there is a push to replace even more scientists with industry representatives. Representative Lamar Smith (R) of Texas, who is Chair of the House Committee on Science, Space and Technology, recently authored a bill which would replace academic scientists with business representatives.<sup>51</sup> At a hearing in

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<sup>47</sup> See *id.* These websites have historically housed records of critical climate change data like temperature increases, greenhouse gas emission levels, and the rise of sea levels. The Environmental Data and Governance Initiative is a group of scientists monitoring content that is changed or hidden. See Amy Harmon, *Activists Rush to Save Government Science Data — If They Can Find It*, N.Y. TIMES (Mar. 6, 2017), <https://www.nytimes.com/2017/03/06/science/donald-trump-data-rescue-science.html>.

<sup>48</sup> EPA's Scientific Advisory Board was established in 1978 and is designed to provide “sound scientific” data, analysis, and interpretations to the Administrator. This includes reviewing the quality and relevance of scientific data and providing advice on broad scientific matters to the agency. See *EPA Science Advisory Board (SAB)*, EPA, <https://yosemite.epa.gov/sab/sabpeople.nsf/WebCommittees/BOARD> (last visited Oct. 5, 2018); *About the Science Advisory Board (SAB) and the SAB Staff Office*, EPA, <https://www.epa.gov/aboutepa/about-science-advisory-board-sab-and-sab-staff-office> (last visited Oct. 4, 2018).

<sup>49</sup> See Coral Davenport, *E.P.A. Dismisses Members of Major Scientific Review Board*, N.Y. TIMES (May 8, 2017), <https://www.nytimes.com/2017/05/07/us/politics/epa-dismisses-members-of-major-scientific-review-board.html>.

<sup>50</sup> *Id.* The Advisory Board has reached consensus that the EPA should strengthen its climate science. See *id.*

<sup>51</sup> See Davenport, *supra* note 49. Representative Smith co-authored the EPA Science Advisory Board Reform Act of 2017. He was quoted as saying: “This valuable bill opens the door to increased outside input, wider expert

February 2017, Representative Smith accused EPA of using *biased* scientists, stating, “The EPA routinely stacks this board with friendly scientists who receive millions of dollars in grants from the federal government. The conflict of interest here is clear.”<sup>52</sup> Scientists were shocked by this policy, because it sharply contrasted the policies of major grant-funding agencies, like the National Institutes of Health, and more importantly, because industry-funded scientists did not receive a similar mandate.<sup>53</sup> As a result, as of 2017, eighteen of the forty-four members of the Scientific Advisory Board are now Pruitt appointees.<sup>54</sup>

Two weeks after the members of the EPA’s Scientific Advisory Board were dismissed, Dr. Deborah Swackhamer, an environmental chemist and head of the Advisory Board was called to testify before Congress about the dismissals.<sup>55</sup> Before she testified, Ryan Jackson, EPA’s Chief of Staff, pulled her aside and advised her to “stick to ‘the agency’s talking points’” on the Board dismissals that had just occurred.<sup>56</sup> “The Board of Scientific Counselors had 68 members two months ago. It will have 11, come Sept. 1,” Dr. Swackhamer said. “They’ve essentially suspended scientific activities by ending these terms. We have no meetings scheduled, no bodies to do the work.”<sup>57</sup>

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opinions, and more balanced recommendations in EPA’s Science Advisory Board.” Asher Price, *Rep. Lamar Smith Laid Groundwork for Trump EPA Science Advisers Ouster*, STATESMAN (Sept. 22, 2018), <https://www.statesman.com/news/20170509/rep-lamar-smith-laid-groundwork-for-trump-epa-science-advisers-ouster>.

<sup>52</sup> Davenport, *supra* note 49. For more information on applying for EPA research funding, see *Research Funding Opportunities: How to Apply and Required Forms*, EPA, <https://www.epa.gov/research-grants/research-funding-opportunities-how-apply-and-required-forms> (last visited Nov. 18, 2018).

<sup>53</sup> See Jeff Tollefson, *Science Under Siege: Behind the Scenes at Trump’s Troubled Environmental Agency*, SCI. AM., NATURE MAG. (July 15, 2018), <https://www.scientificamerican.com/article/science-under-siege-behind-the-scenes-at-trumps-troubled-environment-agency/>.

<sup>54</sup> *See id.*

<sup>55</sup> See Coral Davenport, *E.P.A. Official Pressured Scientist on Congressional Testimony, Emails Show*, N.Y. TIMES (June 27, 2017), <https://www.nytimes.com/2017/06/26/us/politics/epa-official-pressured-scientist-on-congressional-testimony-emails-show.html>.

<sup>56</sup> *Id.*

<sup>57</sup> *Id.* Representative Smith wasted no time dismissing the accusations of tampering with Dr. Swackhamer’s testimony stating,

It’s disappointing that the minority is politicizing what seems to be nothing more than a federal agency making sure that information provided to Congress is accurate . . . it is clear that the Minority invited

Do these actions by the executive branch reach beyond what has happened in the past? James Thurber, the founder of the Center for Congressional American Studies at American University, seems to think so. He recently told the *New York Times* that “he had never heard of an administration pressuring a witness, particularly a scientist, to alter testimony already submitted for the official record.”<sup>58</sup>

There is no question that altering scientific testimony fundamentally affects scientific integrity. Despite an admirable effort by the Obama Administration to require agencies to enact policies promoting scientific integrity, agencies are still ill-equipped to protect themselves from political interference. President Obama issued a Presidential Memorandum in 2009 directing federal agencies, including the EPA, CDC, and NOAA, to adopt internal scientific integrity policies to ensure that administrators could not censor inconvenient facts.<sup>59</sup> In response, at least twenty-six of the agencies adopted policies to protect scientific integrity by encouraging the open dissemination of scientific information, allowing employees to speak with the media, and authorizing employees to use social media and blogs.<sup>60</sup>

In 2017, the Trump Administration allegedly told agencies, including EPA and the United States Department of Agriculture (USDA), to curtail all messages to the press and the public.<sup>61</sup> While it is common for incoming administrations to make agency-level policy changes, how the directives are perceived by agency scientists matters. Professor Cary Coglianese, who directs the University of Pennsylvania Law School’s Program on Regulation, commented that while the exact wording of the directives may

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her in an attempt to hijack the stated purpose of the Committee’s hearing on states’ role in EPA rulemaking and shift the focus to recent EPA actions involving the Board. . . .

*Id.*

<sup>58</sup> *Id.*

<sup>59</sup> See THE WHITE HOUSE: OFFICE OF THE PRESS SECRETARY, Memorandum for the Heads of Executive Departments and Agencies (Mar. 9, 2009), <https://obamawhitehouse.archives.gov/the-press-office/memorandum-heads-executive-departments-and-agencies-3-9-09>.

<sup>60</sup> See Maggie Koerth-Baker, *Trump Finds the Weak Spot in Obama’s Protections for Scientists*, FIVETHIRTYEIGHT (Jan. 24, 2017, 5:51 PM), <https://fivethirtyeight.com/features/trump-finds-the-weak-spot-in-obamas-protections-for-scientists/>.

<sup>61</sup> See *id.* This was reported according to leaks made to The Huffington Post, ProPublica and BuzzFeed News. See *id.*

vary with the Administration, “what we’re hearing about seems to go against the grain of the broader spirit of scientific integrity.”<sup>62</sup>

If the executive branch has the power to undermine scientific integrity to suit its ideological agenda, then agencies arguably becomes nothing more than political arms of an administration, incapable of carrying out their missions and purposes. And, undermining the scientific process makes it even more difficult for EPA to consider environmental justice issues in rule implementation and agency actions because they will lack information on the quantitative and qualitative impacts of environmental deregulation on poorer communities.

## II. ENVIRONMENTAL JUSTICE – IMPERFECT PROGRESS

### A. *Lofty Goals*

Environmental justice has long been a named priority of the executive branch. The strongly-worded language of President Clinton’s 1994 Executive Order 12,898 directed agencies

to the *greatest extent practicable* and permitted by law . . . to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.<sup>63</sup>

Additionally, the Clinton Administration specifically directed federal agencies to design and conduct research and collect and analyze data with minority and low-income populations in mind.<sup>64</sup> Federal agencies were then required to determine whether the activity or policy had a disproportionately high and adverse human health or environmental effect on minority or low-income

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<sup>62</sup> *See id.*

<sup>63</sup> Exec. Order No. 12898, 32 C.F.R. 651.17 (1994) (emphasis added), <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>.

<sup>64</sup> *See id.* A major achievement of this order was in its legitimization of the plight of those who suffered as a result of environmental discrimination. And, it spurred a number of regulatory and policy initiatives by states to recognize environmental justice in decisionmaking. *See* Albert Huang, *The 20th Anniversary of President Clinton’s Executive Order 12898 on Environmental Justice*, NAT. RES. DEF. COUNCIL (Feb. 10, 2014), <https://www.nrdc.org/experts/albert-huang/20th-anniversary-president-clintons-executive-order-12898-environmental-justice>.

populations.<sup>65</sup>

Since 1994, the primary challenge has been to move from a working definition of environmental justice to the implementation of measures that fairly distribute environmental risks and harms.<sup>66</sup> In other words, the ultimate goal has been to ensure that no community is put at risk of disproportionate harm. President Obama's 2008 campaign promise to strengthen environmental justice was later realized by providing more access to amenities, goods, and services that ensure the health of the community throughout the United States.<sup>67</sup> Additional measures included a 2011 Memorandum of Understanding and Executive Order 12,898<sup>68</sup> issued by the Interagency Working Group on Environmental Justice, and the ambitious EJ 2020 Action Agenda issued by EPA in May of 2016, which would have deepened environmental justice practices within EPA.<sup>69</sup>

While progress has occurred, there is also no question that a number of unaddressed factors contribute to high profile environmental justice disasters. The economic recession of 2008 drastically affected state and local management of environmental

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<sup>65</sup> See *id.* This disproportionate effect was also meant to be specifically applied to Native American programs and directed the Agency to even consider the consumption patterns of populations who rely on fish and/or wildlife for sustenance. Many tribes are still very much reliant on the water sources not only to support their livelihood, but also in its ability to sustain an ecosystem which allows them to fish and hunt. See *id.*

<sup>66</sup> See Env'tl. L. Inst., *Environmental Justice: An Obama Administration Retrospective: A Dialogue*, 47 ENVTL. L. REP. NEWS & ANALYSIS 10385 (2017).

<sup>67</sup> See *id.* Since 1994, the EPA's Small Grants Program has awarded more than \$24 million in funding to over 1,400 community-based organizations working with communities on environmental justice issues. See *Environmental Justice Grants Program*, EPA, <https://www.epa.gov/environmentaljustice/environmental-justice-small-grants-program> (last visited Oct 31, 2018).

<sup>68</sup> See INTERAGENCY WORKING GRP ON ENVTL. JUSTICE, MEMORANDUM OF UNDERSTANDING AND EXECUTIVE ORDER 12898 (Aug. 2011), <https://www.epa.gov/sites/production/files/2015-02/documents/ej-mou-2011-08.pdf>. The MoU, executed by the Department of Agriculture, Department of Commerce, Department of Defense, Department of Energy, Department of Health and Human Services, Department of Housing and Urban Development, Department of the Interior, Department of Justice, Department of Labor, Department of Transportation, and EPA, promised an "Environmental Justice Strategy" issued by each agency, as well as an annual implementation progress report to gauge progress and collaboration between agencies. See *id.*

<sup>69</sup> See EPA, EJ 2020 ACTION AGENDA: THE U.S. EPA'S ENVIRONMENTAL JUSTICE STRATEGIC PLAN FOR 2016-2020 (May 2016), [https://www.epa.gov/sites/production/files/2016-05/documents/052216\\_ej\\_2020\\_strategic\\_plan\\_final\\_0.pdf](https://www.epa.gov/sites/production/files/2016-05/documents/052216_ej_2020_strategic_plan_final_0.pdf).

issues, which was evident in the bungled handling of the water crisis in Flint, Michigan. But Flint is only one example of the current systemic problem. On September 16, 2016, the U.S. Commission on Civil Rights issued a scathing assessment of EPA's compliance with and enforcement of Title VI and Executive Order 12,898.<sup>70</sup> As of that date, EPA's Office of Civil Rights had *never* made a formal finding of environmental discrimination and had never withheld or withdrawn financial assistance from a funding recipient *in its entire history*.<sup>71</sup> Additionally, the study found that complaints went unanswered for years—sometimes decades—due to the Office's continual non-compliance with regulatory timelines, often resulting in lawsuits.<sup>72</sup>

After the report was published, the Office of Civil Rights finally made its first discrimination finding in January of 2017. The finding was against the Genesee Power Station in Flint, Michigan, for its discriminatory treatment of African Americans during a permit hearing.<sup>73</sup> Specifically, EPA found that officials with the Michigan Department of Environmental Quality (MDEQ) “deviated from . . . standard operating procedures [at public hearings] on more than one occasion to the detriment of African Americans.”<sup>74</sup> In a response reminiscent of its defiant approach toward EPA during Flint's drinking water crisis, MDEQ stated that

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<sup>70</sup> See U.S. COMM'N ON CIVIL RIGHTS, ENVIRONMENTAL JUSTICE: EXAMINING THE ENVIRONMENTAL PROTECTION AGENCY'S COMPLIANCE AND ENFORCEMENT OF TITLE VI AND EXECUTIVE ORDER 12898 (Sept. 2016), [https://www.usccr.gov/pubs/2016/Statutory\\_Enforcement\\_Report2016.pdf](https://www.usccr.gov/pubs/2016/Statutory_Enforcement_Report2016.pdf).

<sup>71</sup> See *id.* at 4.

<sup>72</sup> See *id.* at 28; see also, e.g., *Rosemere Neighborhood Ass'n v. EPA*, 581 F.3d 1169 (9th Cir. 2009). In that case, the Ninth Circuit found that “EPA's [Office of Civil Rights] failed to process a single complaint from 2006 to 2007 in accordance with its regulatory deadlines.” *Id.* at 1174. The court noted that the Rosemere Neighborhood Association's experience was “sadly and unfortunately typical of those who appeal to [the Office of Civil Rights] to remedy civil violations.” *Id.* at 1175.

<sup>73</sup> See Talia Buford, *Rare Discrimination Finding by EPA Civil-Rights Office*, THE CTR. FOR PUB. INTEGRITY (Jan. 25, 2017, 12:50 PM), <https://www.publicintegrity.org/2017/01/25/20616/rare-discrimination-finding-epa-civil-rights-office>. Interestingly enough, the EPA's finding on the Genesee plant was separate from “additional and current serious concerns” that the Agency had previously expressed about the Michigan Department of Environmental Quality's handling of the lead contamination and drinking water crisis in Flint. See *id.*

<sup>74</sup> See *id.* For example, the MDEQ used armed guards to intimidate speakers and closed the public hearings before all who wanted to speak had been given the opportunity to do so. See *id.*

it “disagrees with the EPA assertion that MDEQ has not taken sufficient action to address public participation, especially in minority communities. . . . Above all, our purpose is to respect Michigan residents and to protect public health and the environment.”<sup>75</sup> Curiously, as of 2017, there was no public record of a civil rights complaint being filed on this matter, although EPA acknowledged that it had received several emailed complaints regarding the matter.<sup>76</sup>

Much like the crisis in Flint, EPA continues to struggle with adequate handling of environmental justice matters. The report by the U.S. Commission on Civil Rights highlights the continued difficulty that EPA faces, even with statutorily granted power under Title VI of the Civil Rights Act. EPA’s inability to ensure compliance with Title VI was entirely foreseeable given the lack of resources devoted to the Office of Civil Rights: only eight employees were responsible for managing and investigating Title VI complaints.<sup>77</sup> The report also found that the Office’s employees lack clarity on the skills required for their position and that the skills employees do have are misaligned with their vast job duties, including inherently technical aspects of complaints investigation.<sup>78</sup> This lack of clarity and misalignment leads to a conclusion that the Office is understaffed and employees have been undertrained. A solution would require devoting more resources for a robust, well-trained staff who could better identify and handle instances of environmental discrimination.

Although the handling of environmental justice issues was undeniably flawed under past administrations, at least environmental justice issues were acknowledged and attempts were made to address them. There are now concerns that because environmental justice is derived from an Executive Order, rather

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<sup>75</sup> *See id.*

<sup>76</sup> *See id.* Although no public records indicate that any civil rights case has been filed, the EPA explained that it had, in fact, received at least 2 emailed complaints alleging discrimination after the Flint’s water crisis. *See Rachel Levin, Critics Say Flint Complaint Reflects Systemic EPA Issues*, BLOOMBERG BNA (June 12, 2016), <https://www.bna.com/critics-say-flint-n73014444082/>.

<sup>77</sup> *See* U.S. COMM’N ON CIVIL RIGHTS, *supra* note 70, at 48.

<sup>78</sup> *See id.* Specifically, these 8 employees were charged with investigating complaints, providing technical assistance, responding to Freedom of Information Act Requests, and assisting in developing policy documents. *See id.* at 48–49.

than an overarching environmental justice federal law, it is possible that the Trump Administration will simply eliminate environmental justice from its regulatory agenda or quietly dismantle programs that have worked in the past.<sup>79</sup> Environmental justice initiatives have survived six administrations and five presidents.<sup>80</sup> However, with the proposed budget cuts and a “crackdown” on scientific input at the EPA, it is possible that we will observe more instances of environmental racism, particularly with regard to hazardous waste and water insecurity.<sup>81</sup>

### B. Challenges

The concept of environmental justice is easier to discuss theoretically, as opposed to developing and implementing a policy aimed at achieving it.<sup>82</sup> EPA continues to struggle with integrating this concept into its analyses, acknowledging that there is little

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<sup>79</sup> The EPA has documented EJ success stories, particularly through the community small grants program. For example, Region 9 has successfully used the money to train community members about making better local land use decisions as well as to educate communities about climate change, and even to host local gardening workshops. See *EPA Region 9 Environmental Justice (EJ) Grant Success*, EPA, <https://www.epa.gov/environmentaljustice/epa-region-9-environmental-justice-ej-grant-successes> (last visited Oct. 1, 2018).

<sup>80</sup> See Env'tl. L. Inst., *supra* note 66, at 10387. This is not to say that the handling of EJ issues under all of these Administrations was exemplary. For example, in 2005, under President Bush, Administrator Johnson attempted to drop “race” as a factor in identifying and prioritizing communities with EJ issues, leading to a scathing report by EPA’s Office of the Inspector General about how it failed to meet the objective of the EO. However, in 2008, under the Obama Administration, Administrator Jackson named EJ as a priority, changing the ethos within the still underfunded office. See Huang, *supra* note 64.

<sup>81</sup> See Ramon Jacobs-Shaw, *What Standing Rock Teaches Us About Environmental Racism and Justice*, HEALTH AFFAIRS BLOG (Apr. 17, 2017), <http://healthaffairs.org/blog/2017/04/17/what-standing-rock-teaches-us-about-environmental-racism-and-justice/>; see also Brian Palmer, *Cut Environmental Justice at the EPA, and We All Lose*, NAT. RES. DEF. COUNCIL (Mar. 17, 2017), <https://www.nrdc.org/stories/cut-environmental-justice-epa-and-we-all-lose>.

<sup>82</sup> See David M. Konisky, *The Challenge of Achieving Environmental Protection for All*, SCHOLARS STRATEGY NETWORK (May 26, 2015), <https://scholars.org/brief/challenge-achieving-environmental-protection-all>. “Environmental justice” means the “fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” *Environmental Justice*, EPA, <https://www.EPA.gov/environmentaljustice> (last visited July 7, 2017).

“precedent for how to conduct an environmental justice analysis in the context of a national rulemaking.”<sup>83</sup>

Communities most affected by environmental justice issues have numerous environmental burdens but lack many of the amenities afforded to wealthier neighborhoods.<sup>84</sup> While environmental health problems can affect wealthier and whiter communities, the connection of race and economic class to the distribution of harm is commonplace.<sup>85</sup> For example, black children are significantly more likely to suffer from lead poisoning than white children.<sup>86</sup> Additionally, low-income housing is often located in or near brownfield sites.<sup>87</sup> Lack of access to resources, education, and even political influence often leave lower income communities battling major environmental challenges that are dismissed or overlooked by local and state governments.<sup>88</sup>

There are two current trends that pose major challenges to identifying and prioritizing environmental justice issues. The first and most important challenge to identifying these issues is the erosion of transparency and integrity of science utilized by administrative agencies. This erosion of scientific integrity is particularly evident given the Trump Administration’s policies,

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<sup>83</sup> Shannon M. Roesler, *Addressing Environmental Injustices: A Capability Approach to Rulemaking*, 114 W. VA. L. REV. 49, 52–53 (2011) (quoting EPA, DRAFT ENVIRONMENTAL JUSTICE METHODOLOGY FOR THE DEFINITION OF SOLID WASTE FINAL RULE (Jan. 13, 2009), <http://https://www.regulations.gov/document?D=EPA-HQ-RCRA-2009-0315-0264>).

<sup>84</sup> See Miranda Massie et al., *Whose Survival? Environmental Justice as a Civil Rights Issue*, 13 N.Y.C. L. REV. 257, 279 (2010).

<sup>85</sup> See *id.* at 268.

<sup>86</sup> See Krista Brent Zook, *Lead Poisoning and Black Children*, NPR (June 10, 2005, 12:00 AM), <https://www.npr.org/templates/story/story.php?storyId=4697843>; Robert J. Sampson & Alix Winter, *The Racial Ecology of Lead Poisoning*, DU BOIS REV. (2016), at 11. Communities of color are also disproportionately exposed to air pollution. See Michelle L. Bell & Keita Ebisu, *Environmental Inequality in Exposures to Airborne Particulate Matter Components in the United States*, 120 ENVTL. HEALTH PERSP. 1699, 1701 (2012).

<sup>87</sup> See Bell & Ebisu, *supra* note 86, at 1699, 1702.

<sup>88</sup> See Michael Gochfeld & Joanna Burger, *Disproportionate Exposures in Environmental Justice and Other Populations: The Importance of Outliers*, 101 AM. J. OF PUB. HEALTH S53, S60 (Sept. 2011); see also RACHEL MASSEY, ENVIRONMENTAL JUSTICE: INCOME, RACE, AND HEALTH 18 (2004), [http://www.ase.tufts.edu/gdae/education\\_materials/modules/Environmental\\_Justice.pdf](http://www.ase.tufts.edu/gdae/education_materials/modules/Environmental_Justice.pdf).

which include the use of the Congressional Review Act to repeal over a decade's worth of scientific data used to draft the Stream Protection Rule,<sup>89</sup> a decrease in scientific information available for the public,<sup>90</sup> and the recent removal and replacement of members of EPA's Scientific Advisory Board.<sup>91</sup>

The second challenge is the Trump Administration's use of the principles of federalism to advocate for a transfer of environmental enforcement to the states. Federalism, as it relates to environmental regulatory issues, promotes a decentralized policy process where it is not uncommon for industry to "hold most of the cards not dealt to establishment environmentalists."<sup>92</sup> This also presents challenges for state environmental enforcement agencies that are often facing a lack of monetary and staffing resources, apathy when it comes to enforcement, and a general ignorance of the science underlying the environmental issues.<sup>93</sup>

Therefore, environmental justice must often contend with various aspects of federalism, such as the federal level separation of powers or even private sector activities and policies operating at both state and local level governments.<sup>94</sup> The confusing relationship and lack of coordination between federal, state, and local agencies can produce disastrous consequences like the recent drinking water crisis in Flint, Michigan.<sup>95</sup>

Some assume that environmental justice advocates simply want equity or "equalized pollution," meaning the treatment of all cases the same.<sup>96</sup> Instead, due to the nature of regional EPA offices,<sup>97</sup> which are set up to address local and regional problems,

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<sup>89</sup> See generally Brie D. Sherwin, *Regulating Coal Waste in the Trump Era*, 37 STAN. ENVTL. L. J. 75 (2018).

<sup>90</sup> See Davenport, *supra* note 45.

<sup>91</sup> See Davenport, *supra* note 49.

<sup>92</sup> CHRISTOPHER H. FOREMAN, *THE PROMISE AND PERIL OF ENVIRONMENTAL JUSTICE* 7 (2011).

<sup>93</sup> See Sherwin, *supra* note 89, at 116.

<sup>94</sup> See FOREMAN, *supra* note 92, at 7.

<sup>95</sup> See, e.g., Brie D. Sherwin, *Pride and Prejudice and Administrative Zombies: How Economic Woes, Outdated Environmental Regulations, and State Exceptionalism Failed Flint, Michigan*, 88 U. OF COLO. L. REV. 653 (2017).

<sup>96</sup> See *id.* at 707.

<sup>97</sup> The EPA has ten regional offices across the country, which are responsible for a group of states, and sometimes territories and special programs. See *Visiting a Regional Office*, EPA, <https://www.epa.gov/aboutepa/visiting-regional-office> (last visited Oct. 4, 2018).

as well as the segmentation of the environmental justice movement, the focus should ideally be on particularized environmental solutions for the community.<sup>98</sup>

President Trump has vowed to “return power” to the states to regulate the environment,<sup>99</sup> while simultaneously proposing funding cuts, including much-needed grants to states.<sup>100</sup> This funding cut would have resulted in significantly reduced funding for projects like the Chesapeake Bay cleanup,<sup>101</sup> which would only have received about \$7.3 million, down ninety percent from its annual \$73 million grant.<sup>102</sup> Ultimately, Congress decided to fund the project.<sup>103</sup>

Former EPA Administrator Scott Pruitt embodies the spirit of President Trump’s deregulatory agenda. For instance, Pruitt joined a legal challenge in 2014 to the Chesapeake Bay cleanup program, arguing that states—and not EPA—should be in charge of curbing the pollution level.<sup>104</sup> Pruitt became well-adept at suing EPA before becoming the EPA Administrator.<sup>105</sup> Under his leadership,

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<sup>98</sup> See FOREMAN, *supra* note 92, at 7.

<sup>99</sup> See *Back-to-Basics Agenda*, EPA, <https://www.epa.gov/home/back-basics-agenda> (last visited Oct. 26, 2018).

<sup>100</sup> See FOREMAN, *supra* note 92, at 7.

<sup>101</sup> In 1983, EPA signed the first Chesapeake Bay Agreement with Maryland, Pennsylvania, Virginia, and the District of Columbia recognizing the need to act to clean up the Bay. For over 40 years, the Bay has experienced a systemic overabundance of nitrogen and phosphorus from animal waste and run-off, feeding algal blooms that block sunlight to underwater grasses and contribute to the formation of dead zones. Non-profit groups like the Chesapeake Bay Foundation are working with the government, utilizing grant money on the continued cleanup. See *The History of Chesapeake Bay Cleanup Efforts*, CHESAPEAKE BAY FOUND., <http://www.cbf.org/how-we-save-the-bay/chesapeake-clean-water-blueprint/the-history-of-bay-cleanup-efforts.html> (last visited Oct. 4, 2018).

<sup>102</sup> See Tamara Dietrich, *Congress Fully Funds Chesapeake Bay Cleanup—Again*, DAILY PRESS (March 27, 2018), <http://www.dailypress.com/news/science/dp-nws-chesapeake-bay-funded-20180327-story.html>.

<sup>103</sup> As of March 27, 2018, despite President Trump’s plan to cut funding, Congress voted to fully fund the project. See Tamara Dietrich, *Congress Fully Funds Chesapeake Bay Cleanup – Again*, DAILY PRESS (Mar. 27, 2018), <http://www.dailypress.com/news/science/dp-nws-chesapeake-bay-funded-20180327-story.html>; see also Jenna Portnoy, *Trump Wants to End Funding of the Chesapeake Bay Cleanup. Here’s Who’s Fighting Back*, WASH. POST (Mar. 18, 2017), [https://www.washingtonpost.com/local/virginia-politics/trump-wants-to-end-funding-of-the-chesapeake-bay-cleanup-heres-whos-fighting-back/2017/03/18/64a1f50c-0a5a-11e7-b77c-0047d15a24e0\\_story.html](https://www.washingtonpost.com/local/virginia-politics/trump-wants-to-end-funding-of-the-chesapeake-bay-cleanup-heres-whos-fighting-back/2017/03/18/64a1f50c-0a5a-11e7-b77c-0047d15a24e0_story.html).

<sup>104</sup> See Portnoy, *supra* note 103.

<sup>105</sup> Pruitt sued the EPA more than a dozen times during the Obama

until his resignation effective as of July 6, 2018,<sup>106</sup> the Agency's purpose changed. Pruitt stated that he intended to return EPA to its central purpose of protecting the nation's water and air, while leaving the primary role of enforcement up to the states.<sup>107</sup> However, when local and state governments fail to recognize and address an imminently dangerous public health issue like excessively high lead levels in drinking water, it then becomes difficult to make the argument that states are better equipped to handle such problems.

Pruitt proudly declared himself a "states' rights" guy wanting the power to regulate the environment to go back to each state,<sup>108</sup> and Andrew Wheeler, Interim Administrator and former coal industry lobbyist, seems to espouse the same conservative views about the environmental regulatory structure.<sup>109</sup> Pruitt's goal was to diminish the overbearing actions of the federal agency which he formerly headed.<sup>110</sup> In a speech to miners, he said, "It's sad that a regulatory body of the government of the United States would declare a war on any part of our economy. The regulatory assault is over."<sup>111</sup> And, he worked fast to make those changes. When Ken Paxton, the Texas Attorney General, met with Pruitt and delivered a letter from eleven attorneys general requesting that the Agency withdraw a rule requiring energy companies to report scientific data on methane emissions from oil and gas wells, Pruitt delivered.<sup>112</sup> One day after receiving the letter, the rule was withdrawn.<sup>113</sup>

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Administration in his role as Oklahoma's Attorney General. See Brady Dennis, *Scott Pruitt, Longtime Adversary Of EPA, Confirmed to Lead the Agency*, WASH. POST (Feb. 17, 2017), [https://www.washingtonpost.com/news/energy-environment/wp/2017/02/17/scott-pruitt-long-time-adversary-of-epa-confirmed-to-lead-the-agency/?utm\\_term=.aba83c2d8618](https://www.washingtonpost.com/news/energy-environment/wp/2017/02/17/scott-pruitt-long-time-adversary-of-epa-confirmed-to-lead-the-agency/?utm_term=.aba83c2d8618).

<sup>106</sup> See William Cummings, *The Full Text of EPA Administrator Scott Pruitt's Resignation Letter to President Trump*, USA TODAY (July 5, 2018), <https://www.usatoday.com/story/news/politics/onpolitics/2018/07/05/scott-pruitt-resignation-letter/761174002>.

<sup>107</sup> See Dennis, *supra* note 105.

<sup>108</sup> See Davenport, *supra* note 21.

<sup>109</sup> See Abigail Abrams, *What to Know About Andrew Wheeler, a Former Coal Lobbyist Who Will Temporarily Replace Scott Pruitt as EPA Chief*, TIME (July 6, 2018), <http://time.com/5331352/andrew-wheeler-epa/>.

<sup>110</sup> See Dennis, *supra* note 109.

<sup>111</sup> See *id.*

<sup>112</sup> See *id.*

<sup>113</sup> See *id.*

EPA's own scientists have reported that they are no longer being consulted as part of the decisionmaking process in favor of lobbyists.<sup>114</sup> And, it is not just a displacement of scientific advisors within the Agency that is concerning to environmental advocates, but, on top of everything, the proposed budget cuts for 2018.<sup>115</sup> The most significant cut, aside from President Trump's proposed EPA budget cut of nearly a third overall,<sup>116</sup> was his plan to cut EPA's federal enforcement office by 40 percent.<sup>117</sup> Why would the agency tasked with enforcing federal environmental statutes cut federal enforcement? The Administration's argument is that states should oversee enforcement and balance the interests of business with the environment.<sup>118</sup> However, recently there have been blatant examples of incompetence, arrogance, and data manipulation by generally under-resourced state agencies that are either unwilling or unable to oversee environmental enforcement—even with federal oversight and funding.<sup>119</sup> The double-whammy in the 2018 proposed budget was that it also planned to cut 45 percent of the grants allocated to states.<sup>120</sup> These grants enable states to enforce environmental regulations and provide funding through the environmental justice office for communities that are subjected to discriminatory environmental pollution.<sup>121</sup> While the extent of the proposed cuts did not come to fruition in the recent budget, the Trump Administration's plan is

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<sup>114</sup> See *id.* When surveyed, scientists believe they are being pushed out. See generally UNION OF CONCERNED SCIENTISTS, *supra* note 20.

<sup>115</sup> See Robinson Meyer, *What Does Trump's Budget Mean for the Environment?*, THE ATLANTIC (May 24, 2017), <https://www.theatlantic.com/science/archive/2017/05/trump-epa-budget-noaa-climate-change/527814/>.

<sup>116</sup> For sake of comparison, President George W. Bush proposed a comparatively modest 5 percent cut to the EPA in his first budget. See *id.*

<sup>117</sup> See *id.*

<sup>118</sup> See *id.*

<sup>119</sup> See INST. FOR POL'Y INTEGRITY, IRREPLACEABLE: WHY STATES CAN'T AND WON'T MAKE UP FOR INADEQUATE FEDERAL ENFORCEMENT OF ENVIRONMENTAL LAWS 1 (2017), [https://policyintegrity.org/files/media/EPA\\_Enforcement\\_June2017.pdf](https://policyintegrity.org/files/media/EPA_Enforcement_June2017.pdf). The recent crisis in Flint, Michigan illustrates all of these problems and has resulted in criminal charges filed against several state employees. See Robert Allen, *Investigator: Workers Changed Reports, Hid Data in Flint Water Crisis*, DETROIT FREE PRESS (June 29, 2016), <https://www.freep.com/story/news/local/michigan/flint-water-crisis/2016/07/29/investigator-workers-changed-reports-hid-data-flint-water-crisis/87702870/>.

<sup>120</sup> See Meyer, *supra* note 115.

<sup>121</sup> See *id.*

clear: less funding, reduced enforcement, fewer scientists, and a return of “power” to the states. This plan does little to address environmental justice issues that continue to be overlooked.

### C. *Case Studies of Recent Failures of the Regulatory System*

There is a strong argument that our current system of federal oversight has failed the communities most at risk.<sup>122</sup> However, there is little evidence that the solution for these communities lies in a more decentralized and underfunded process. Flint, Michigan, is the perfect example of how a state regulatory agency failed its city—even with oversight by EPA.

#### 1. *Flint, Michigan: Data Falsification & Agency Failure*

In October 2015, a local pediatrician and several scientists discovered that residents of the low-income city of Flint, Michigan, were exposed to extraordinarily high levels of lead in their drinking water.<sup>123</sup> Poverty is endemic in the town, with more than 41 percent of the population living below the poverty level.<sup>124</sup> Additionally, 54 percent of Flint residents are Black or African American.<sup>125</sup> The Flint water crisis was deeply concerning because of how federal and state regulatory agencies mishandled the science, while simultaneously dismissing citizen complaints.<sup>126</sup> In

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<sup>122</sup> See Vann R. Newkirk II, *The EPA's Failure to Protect People from the Environment*, THE ATLANTIC (Sept. 30, 2016), <https://www.theatlantic.com/politics/archive/2016/09/epa-civil-rights-environmental-justice-report/502427/>.

<sup>123</sup> See Abby Goodnough, *Flint Weighs Scope of Harm to Children Caused by Lead in Water*, N.Y. TIMES (Jan. 29, 2016), <https://www.nytimes.com/2016/01/30/us/flint-weighs-scope-of-harm-to-children-caused-by-lead-in-water.html>. Lead is a potent neurotoxin, particularly in children. The most concerning impact of lead poisoning in children is the permanent impact on neurological development. See Richard L. Canfield et al., *Environmental Lead Exposure and Children's Cognitive Function*, 31(6) RIVISTA ITALIANA DI PEDIATRIA 293 (2005).

<sup>124</sup> *2011–2015 American Community Survey 5-Year Estimates*, U.S. CENSUS BUREAU (Dec. 8, 2016), [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_16\\_5YR\\_C17002&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_C17002&prodType=table).

<sup>125</sup> *QuickFacts for Flint, Michigan and the United States*, U.S. CENSUS BUREAU, <http://www.census.gov/quickfacts/table/PST045215/00> (last visited Aug. 30, 2017).

<sup>126</sup> Jesse Worker & Elizabeth Moses, *Environmental Justice and Democracy Failures at the Heart of Flint's Water Crisis*, WORLD RESOURCES INSTITUTE BLOG (May 10, 2016), <http://www.wri.org/blog/2016/05/environmental-justice-and-democracy-failures-heart-flints-water-crisis>.

fact, a 2015 email from Debbie Balthazar, EPA Region 5 Water Division Branch Chief, read as follows regarding the crisis: “I’m not so sure Flint is the community we want to go out on a limb for.”<sup>127</sup>

There were many underlying causes of the crisis, which the Flint Water Advisory Task Force later identified, along with forty-four recommendations to remedy the Agency failures that lasted over eighteen months.<sup>128</sup> The failures most notably included the lack of government accountability and transparency, as well as the state appointment of an Emergency Manager, who did not answer to the local mayor or city council.<sup>129</sup> The Emergency Manager unilaterally decided to draw corrosive water from the Flint River for residential use without employing the legally-mandated corrosion treatments.<sup>130</sup> This purely economic decision to forgo the protective water treatment caused large amounts of lead to leach from the pipes into the drinking water.<sup>131</sup>

The crisis in Flint illustrates a failure of the government at all levels—local, state, and federal. Because the State of Michigan failed to adequately inform its citizens, and EPA delayed enforcement of the Safe Drinking Water Act<sup>132</sup> and the Lead and Copper Rule (LCR),<sup>133</sup> the public health of the city fell into a

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<sup>127</sup> Libby Nelson, *EPA Email: “I’m Not so Sure Flint is the Community We Want to Go Out on a Limb For”*, VOX.COM (Mar. 15, 2016), <https://www.vox.com/2016/3/15/11239438/flint-epa>.

<sup>128</sup> *See id.*

<sup>129</sup> *See* FLINT WATER ADVISORY TASK FORCE, *supra* note 15, at 38.

<sup>130</sup> *See id.* at 40.

<sup>131</sup> *See id.*

<sup>132</sup> 42 U.S.C. § 300f et seq. (1974). The Safe Drinking Water Act (SDWA) and its 1996 amendments authorized the EPA to establish minimum standards to protect tap water by considering detailed cost and risk assessment, along with “the best available peer-reviewed science” when developing these standards. *Id.*

<sup>133</sup> *See* 40 C.F.R. §§ 141.80–.91 (2012). The goal of the Lead and Copper Rule, promulgated under the SDWA in 1991 and revised in 2007, is to “provide maximum health protection by reducing lead and copper levels at consumers’ taps to as close to the [Maximum Contaminant Level Goals] MCLGs as is feasible. To accomplish this goal, the LCR establishes requirements for community water systems (CWSs) and non-transient non-community water systems (NTNCWSs) to optimize corrosion control and conduct periodic monitoring.” National Primary Drinking Water Regulations for Lead and Copper, 72 Fed. Reg. 57782, 57783 (proposed Oct. 10, 2007) (to be codified at 40 C.F.R. pt. 141–42). *See also* EPA OFFICE OF INSPECTOR GENERAL, MANAGEMENT WEAKNESSES DELAYED RESPONSE TO FLINT WATER CRISIS (July 19, 2018), <https://www.epa.gov/sites/production/files/2018->

calamitous situation.<sup>134</sup> The Final Report issued by the Flint Water Advisory Task Force<sup>135</sup> in October 2016 concluded that although there were failures at multiple levels, MDEQ, the state's environmental agency, was primarily responsible for the water crisis.<sup>136</sup> The Task Force found that MDEQ failed because of its culture of apathy, misinterpretation of the LCR, and mishandling of the science in the following ways:

- MDEQ, specifically its Office of Drinking Water and Municipal Assistance (ODWMA), suffers from cultural shortcomings that prevent it from adequately serving and protecting the public health of Michigan residents.
- MDEQ misinterpreted the LCR and misapplied its requirements. As a result, lead-in-water levels were under-reported and many residents' exposure to high lead levels was prolonged for months. Specifically:
  - MDEQ's misinterpretation of the LCR and lack of due caution resulted in the decision not to require corrosion control upon the switch to the Flint River, but rather, to begin two consecutive six-month water quality monitoring periods.
  - MDEQ failed to promptly require corrosion control even after the initial six-month monitoring period results were received and ninetieth percentile lead sampling results were at six ppb, which disqualified Flint from being exempted from required corrosion control treatment—even under MDEQ's flawed interpretation.
  - MDEQ's guidance to Flint on LCR compliance sampling techniques (calling for preflushing, use of small-mouthed bottles, etc.), while perhaps technically permissible, was not designed to detect risks to public health. MDEQ failed to take adequate steps to correct Flint water operations staff's inaccurate LCR sampling.
  - MDEQ ODWMA advised Flint Utilities

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07/documents/\_epaoig\_20180719-18-p-0221\_glance.pdf.

<sup>134</sup> See FLINT WATER ADVISORY TASK FORCE, *supra* note 15, at 23.

<sup>135</sup> The Flint Water Advisory Task Force was commissioned by the state of Michigan—specifically by the Office of Governor Rick Snyder. *See id.*

<sup>136</sup> *See id.* at 28.

Department personnel to make sure that the rest of the water samples in the second six-month monitoring period were clean, since the samples they had already submitted exceeded EPA's action level for lead.

- MDEQ conveniently, and without adequate investigation, excluded one of the highest data points for purposes of determining whether Flint sampling results exceeded EPA's action level.<sup>137</sup>

In an even more blunt assessment, the Task Force concluded its report of the state's performance by stating, "MDEQ caused this crisis to happen. Moreover, when confronted with evidence of its failures, MDEQ responded publicly through formal communications with a degree of intransigence and belligerence that has no place in government."<sup>138</sup> The Task Force subsequently made numerous recommendations including providing more training, increasing transparency, improving community engagement, using subject matter experts, and strengthening the enforcement of federal environmental laws at the state level.<sup>139</sup> The conclusions of the Task Force paint a rather grim reality: states are often ill-equipped to handle environmental enforcement matters for a variety of reasons. The state agency's complete disregard for the vulnerable population at risk in Flint and lack of scientific integrity highlight that the current political push to relinquish control of environmental matters to the states with little to no federal oversight is misguided and frightening.

The lack of sensitivity to low-income populations who are disproportionately affected by cost-cutting decisions and the resulting environmental harm is certainly not isolated to this recent crisis. It has been going on for years in Appalachia as coal companies continue to engage in mountaintop removal mining. Even though scientific evidence has found damage to the nearby ecosystem and watersheds, as well as an increased incidence of illness in nearby populations, coal companies and elected officials continue to make promises "to bring back coal jobs," pitting the economy and the livelihood of many locals against the

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<sup>137</sup> See *id.* at 28–29.

<sup>138</sup> See *id.* at 29.

<sup>139</sup> See *id.* at 30.

environment.<sup>140</sup>

## 2. *Coal Mining: The Economy and Scientific Uncertainty*

Tennessee resident, Paloma Galindo, is familiar with how strip mining affected her community.<sup>141</sup> The area, once home to a lush forest, now is a dull, “reclaimed” strip mining site, full of sand, black tar, and crumbling rocks:<sup>142</sup>

It looks like it’s back to its original shape, but it acts like a big sponge,” she said of the hillside, which was reconstructed out of rubble after part of the mountain was blasted away to get at its coal seams. “It’s all broken rock slapped on there and compacted with no hydrological system, so it will soak up water, and five years down the line you’ll get massive landslides. Then the mining company will have already bonded out so the cost will fall on the taxpayers.<sup>143</sup>

This site is one of over five hundred Appalachian mountains which have been removed, creating a vast range of bald, uneven mountain shapes, a result of clearcutting and blasting through mountaintops to rip out coal seams.<sup>144</sup> To many in the country, coal is still viewed as one of the primary sources of cheap energy and to those in Appalachia, “a core value,”<sup>145</sup> but the documented impacts of mountaintop mining removal on nearby communities, often dismissed by politicians supported by the coal lobby, is

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<sup>140</sup> Laura Ruhl et al., *Survey of the Potential Environmental and Health Impacts in the Immediate Aftermath of the Coal Ash Spill in Kingston, Tennessee*, 42 ENVTL. SCI. TECH. 6326, 6330–6331 (2009) (discussing the effects of coal mining on human health and local ecosystem). Specifically, a 2016 Duke University study of coal ash ponds in the United States found systematic leaking from coal ash ponds into groundwater and surfacewater. See Jennifer Harkness et al., *Evidence for Coal Ash Ponds Leaking in the Southeastern United States*, 50 ENVTL. SCI. TECH. 6583, 6583–91 (2016).

<sup>141</sup> Kari Lyderson, *Mountaintop Removal Meets Fresh Resistance in Tennessee*, THE NEW STANDARD (Nov. 15, 2005), <http://newstandardnews.net/content/index.cfm/items/2599>.

<sup>142</sup> See *id.*

<sup>143</sup> See *id.*

<sup>144</sup> See *id.*; Lisa Friedman & Brad Plumer, *Coal Mining Health Study is Halted by Interior Department*, N.Y. TIMES (Aug. 22, 2017), <https://www.nytimes.com/2017/08/21/climate/coal-mining-health-study-is-halted-by-interior-department.html>.

<sup>145</sup> See Ken Silverstein, *Coal is Not a Commodity. It’s a Core Value to Appalachian Communities*, FORBES (Oct. 21, 2018), <https://www.forbes.com/sites/kensilverstein/2018/10/21/coal-is-not-a-commodity-its-a-core-value-to-appalachian-communities/#249c35882731>.

profound.<sup>146</sup> The severe alteration in topography results in unstable landscapes and known dumping of rubble into nearby streambeds.<sup>147</sup>

These drastic landscape changes have forced small, often poverty-stricken, communities in the area to endure increased flooding, live near coal slurry impoundments, drink contaminated water,<sup>148</sup> and breathe dust-laden air,<sup>149</sup> resulting in comparatively higher rates of cancer than their neighbors.<sup>150</sup> In 2010, a review published in *Science Magazine* concluded that the counties near the mountaintop removal mining had increased mortality rates, as well as an increased incidence of kidney disease and lung cancer.<sup>151</sup> The authors concluded that despite the “preponderance of scientific evidence that impacts are pervasive and irreversible,” mining permits were still being issued and mining regulations were inadequate.<sup>152</sup> Further, the scientists urged halting the issuance of permits until a rigorous peer review of the approved mining methods demonstrated that these methods actually remedy the problem.<sup>153</sup> Bottom line, the message from the scientists was loud and clear: “Regulators should no longer ignore science.”<sup>154</sup>

Fast forward seven years to the Trump Administration’s push for “coal jobs.”<sup>155</sup> On the heels of a repeal of the Stream Protection

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<sup>146</sup> *Community Impacts of Mountaintop Removal*, APPALACHIAN VOICES, <http://appvoices.org/end-mountaintop-removal/community/> (last visited Aug. 23, 2017).

<sup>147</sup> See *id.*; see also John McQuaid, *Mountaintop Mining Legacy: Destroying Appalachia’s Streams*, YALE ENV’T 360 (July 20, 2009), [https://e360.yale.edu/features/mountaintop\\_mining\\_legacy\\_destroying\\_appalachian\\_streams](https://e360.yale.edu/features/mountaintop_mining_legacy_destroying_appalachian_streams).

<sup>148</sup> See Renee Cho, *Mountaintop Removal: Laying Waste to Streams and Forests*, EARTH INST. STATE OF THE PLANET (Aug. 11, 2011), <https://blogs.ei.columbia.edu/2011/08/11/mountaintop-removal-laying-waste-to-streams-and-forests>; see also Neil Gormley, *The Poverty of Mountaintop Removal Mining*, EARTHJUSTICE (Jan. 3, 2013), <https://earthjustice.org/blog/2013-january/the-poverty-of-mountaintop-removal-mining>. Water is contaminated with heavy metals such as selenium and manganese. See Cho, *supra*.

<sup>149</sup> See Friedman & Plumer, *supra* note 144.

<sup>150</sup> See *id.*

<sup>151</sup> See M.A. Palmer et al., *Mountaintop Mining Consequences*, 327 SCI. 148 (Jan. 2010), <http://science.sciencemag.org/content/sci/327/5962/148.full.pdf>.

<sup>152</sup> *Id.* at 149.

<sup>153</sup> See *id.*

<sup>154</sup> See *id.*

<sup>155</sup> Hiroko Tabuchi, *Coal Mining Jobs Trump Would Bring Back No*

Rule, a regulation meant to specifically address the effects of mountaintop removal mining, President Trump's Department of Interior issued a letter<sup>156</sup> directing the National Academies of Sciences, Engineering, and Medicine<sup>157</sup> to "cease all work" on a study of mountaintop removal mining on environmental and human health due to an "agency-wide budget review."<sup>158</sup> This decision was both criticized and praised—depending on political affiliation. Representative Raul M. Grijalva, the ranking Democrat on the House Committee on Natural Resources, remarked that "[s]topping this study is a ploy to stop science in its tracks and keep the public in the dark about health risks as a favor to the mining industry, pure and simple."<sup>159</sup> The National Mining Association, however, agreed with the decision to halt the study, citing to a recent scientific study noting that there was no conclusive evidence connecting mountaintop mining with adverse health effects and that studies on mountaintop mining failed to account for extraneous health and lifestyle effects.<sup>160</sup> Of course, that was only part of what the study concluded. While the study pointed out inconsistent associations between mining and a variety of health effects, the scientists also concluded that there is a "critical need for studies that employ direct methods for assessing individual exposure levels tied to health effects, including early

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*Longer Exist*, N.Y. TIMES (Mar. 29, 2017), <https://www.nytimes.com/2017/03/29/business/coal-jobs-trump-appalachia.html>.

<sup>156</sup> See Letter from Glenda H. Owens, Acting Director of the Dept. of the Interior, to Elizabeth A. Eide, Senior Board Director, The National Academies of Sciences, Engineering, and Medicine (Aug. 18, 2017), <http://i2.cdn.turner.com/cnn/2017/images/08/22/nas.letter.pdf>.

<sup>157</sup> The National Academies of Sciences, Engineering, and Medicine describe themselves as follows:

The National Academies are private, nonprofit institutions that provide independent, objective analysis and advice to the nation and conduct other activities to solve complex problems and inform public policy decisions related to science, technology, and medicine. The Academies operate under an 1863 congressional charter to the National Academy of Sciences, signed by President Lincoln.

*About Us*, THE NAT'L ACAD. OF SCI., ENGINEERING, AND MED., <http://nationalacademies.org/hmd/About-HMD.aspx> (last visited Nov. 20, 2018).

<sup>158</sup> Friedman & Plumer, *supra* note 144.

<sup>159</sup> *Id.*

<sup>160</sup> See Abee L. Boyles et al., *Systematic Review of Community Health Impacts of Mountaintop Removal Mining*, 107 ENV'T INT'L 172 (Oct. 2017).

indicators of impacts such as cardiopulmonary function tests.”<sup>161</sup>

The differing interpretations of how to deal with scientific uncertainty is telling. Scientists understand uncertainty as a measure of how well something is known, whereas members of the general public view uncertainty as the unknowable.<sup>162</sup> By the nature of their work, scientists will always represent the limitations of a study or a collective body of work for purposes of transparency and as a measure for scientific progress.<sup>163</sup> Therein lies the difference between uncertainty in the scientific world and uncertainty as the general public sees it. We see this juxtaposition play out when discussing climate change.<sup>164</sup> Climate change skeptics link uncertainty with not knowing enough to act, or worse, not knowing anything.<sup>165</sup> Yet, scientists overwhelmingly agree that there is an undeniable causal link between the burning of fossil fuels and forest clearing to the concentration of CO<sub>2</sub> in the atmosphere.<sup>166</sup> Now, more than ever, there is a push by certain politicians to use scientific uncertainty as a reason not to act.<sup>167</sup> Thus, rather than using uncertainty as a reason to gather more scientific information, or using the best available information, politicians use any degree of uncertainty as an excuse to do nothing.

Certainly, the removal of scientists from key advisory and oversight positions, combined with the proposed budgetary cuts will only serve to exacerbate this illogical reasoning. Without this necessary oversight, administrative agencies may not utilize scientific data appropriately in the decisionmaking process, even when dealing with a high profile environmental justice issue like the construction of the Dakota Access Pipeline. Despite recent attempts by the Trump Administration to expedite the

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<sup>161</sup> See *id.*

<sup>162</sup> *Certainty vs. Uncertainty: Understanding Scientific Terms About Climate Change*, UNION OF CONCERNED SCIENTISTS, [http://www.ucsusa.org/global\\_warming/science\\_and\\_impacts/science/certainty-vs-uncertainty.html](http://www.ucsusa.org/global_warming/science_and_impacts/science/certainty-vs-uncertainty.html) (last visited Nov. 20, 2018).

<sup>163</sup> See *id.*

<sup>164</sup> See *id.*

<sup>165</sup> See *id.*

<sup>166</sup> See *id.*

<sup>167</sup> Richard Pancost & Stephan Lewandowsky, *Climate Uncertainty No Excuse for Inaction*, SCI. AM. (Oct. 17, 2014), <https://www.scientificamerican.com/article/climate-uncertainty-no-excuse-for-inaction/>.

construction, the judiciary is still considering whether to halt the pipeline that is now delivering oil based on an incomplete analysis of environmental impacts, which could serve as a check on the executive branch.<sup>168</sup>

### 3. *The Dakota Access Pipeline: Statistical Game Playing*

Administrative failures to utilize the best science and data at a federal level lead to public distrust of the government's ability to safeguard its citizens. This public distrust was evident in the recent protests of the construction of the Dakota Access Pipeline (DAPL), a \$3.8 billion dollar pipeline, the construction of which is set to cross the Missouri River, just a half mile upstream of the Standing Rock Reservation.<sup>169</sup> The pipeline, currently being constructed by Texas-based Energy Transfer Partners,<sup>170</sup> is expected to transport over half a million barrels of oil per day.<sup>171</sup> The Sioux Nation sued the Army Corps of Engineers (Corps), arguing that this construction violates treaty rights, places sacred areas at risk, and threatens the Sioux's access to safe drinking water.<sup>172</sup> Although

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<sup>168</sup> See Stephanie Keith, *Out of Spotlight, Tribes Keep Fighting Dakota Access Pipeline*, REUTERS (Aug. 2, 2018), <https://www.reuters.com/article/us-south-dakota-native-americans/out-of-spotlight-tribes-keep-fighting-dakota-pipeline-idUSKBN1KN1HT>. As of August 2018, the Army Corps of Engineers released a cursory memorandum stating that it had not found "significant new circumstance[s] or information relevant to environmental concerns." Timothy Cama, *Trump Admin Rejects Environmental Concerns over Dakota Access Pipeline*, THE HILL (Aug. 31, 2018), <https://thehill.com/policy/energy-environment/404633-trump-admin-rejects-environmental-concerns-over-dakota-access>.

<sup>169</sup> See Wes Enzinna, *Arrests and Anxiety at Standing Rock as Trump Pushes DAPL Ahead*, MOTHERJONES (Feb. 2, 2017), <https://www.motherjones.com/environment/2017/02/dakota-access-pipeline-standing-rock-trump> (describing the location of the pipeline relative to the Standing Rock Reservation); see also Merrit Kennedy, *Crude Oil Begins Flowing Through Controversial Dakota Access Pipeline*, NPR (June 1, 2017), <https://www.npr.org/sections/thetwo-way/2017/06/01/531097758/crude-oil-begins-to-flow-through-controversial-dakota-access-pipeline> (describing the cost of the pipeline and its location relative to the Missouri River).

<sup>170</sup> See Justin Worland, *What to Know About the Dakota Access Pipeline Protests*, TIME (Oct. 28, 2016), <http://www.time.com/4548566/Dakota-access-pipeline-standing-rock-sioux/>. As of October 2016, President Trump owned stock in Energy Transfer Partners. See *id.*

<sup>171</sup> See Devashree Saha, *Five Things to Know About the North Dakota Access Pipeline Debate*, BROOKINGS (Sept. 14, 2016), <https://www.brookings.edu/blog/the-avenue/2016/09/14/five-things-to-know-about-the-north-dakota-access-pipeline-debate>.

<sup>172</sup> See Rebecca Hersher, *Key Moments in the Dakota Access Pipeline*

Executive Order 12,898 directs federal agencies, like the Corps, to use population data “to determine whether their programs, policies, and activities have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations,”<sup>173</sup> the Sioux have argued that the Corps failed to do so in its analysis.

Prior to the construction of the pipeline, EPA communicated concerns to the Corps regarding its use of large-scale statistics to avoid environmental justice considerations associated with the Sioux reservation. Specifically, the Corps utilized arguably improper statistics by delineating a .5-mile area around the pipeline as the “affected” area, effectively excluding the entire reservation which was located .55 miles downstream, just 80 yards beyond the boundary of the assessment.<sup>174</sup> As a result, the Corps was able to avoid addressing environmental justice issues associated with the Sioux. The Corps concluded that “there would be no direct or indirect impacts to Tribal lands, members, or protected cultural resources” and issued a Finding of No Significant Impact (FONSI).<sup>175</sup> In response, the Sioux Nation argued that the Corps had limited or “gerrymandered” its geographic focus to avoid any environmental justice analysis that would include the tribe.<sup>176</sup> The Obama Administration agreed with the Sioux and required the Corps to complete an Environmental Impact Statement (EIS) review.<sup>177</sup> However, the Trump Administration changed the course of the review on January 24, 2017, by issuing a Presidential Memorandum which directed the

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Fight, NPR (Feb. 22, 2017), <https://www.npr.org/sections/thetwo-way/2017/02/22/514988040/key-moments-in-the-dakota-access-pipeline-fight>.

<sup>173</sup> Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations, 59 Fed. Reg. 7629, 7631 (Feb. 16, 1994).

<sup>174</sup> See Memorandum in Support of Partial Summary Judgment at 29, *Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers*, No. 1:16-cv-1534-JEB (D.D.C. Feb. 14, 2016).

<sup>175</sup> U.S. ARMY CORPS OF ENGINEERS, *DAKOTA ACCESS PIPELINE ENVIRONMENTAL ASSESSMENT* 86 (July 2016), <https://cdm16021.contentdm.oclc.org/digital/collection/p16021coll7/id/2801>.

<sup>176</sup> Memorandum in Support of Partial Summary Judgment, *supra* note 174, at 28.

<sup>177</sup> See *Obama Administration Orders Environmental Review of Dakota Access Pipeline Easement*, SIERRA CLUB FOUND. (Dec. 12, 2016), <https://www.sierraclubfoundation.org/blog/obama-administration-orders-environmental-review-dakota-access-pipeline-easement>.

Corps to “take all actions necessary and appropriate to . . . review and approve in an expedited manner, to the extent permitted by law and as warranted, and with such conditions as are necessary or appropriate, requests for approvals to construct and operate the DAPL, including easements or rights-of-way.”<sup>178</sup>

Following that directive, the Corps concluded that it was not required to perform additional studies and issued the easement.<sup>179</sup> More recently, on June 14, 2017, a federal judge ordered the Trump Administration to conduct further environmental reviews of the Dakota Access pipeline.<sup>180</sup> Even though the U.S. Army Corps of Engineers “substantially complied” with federal environmental laws, U.S. District Judge James Boasberg wrote that, “it did not adequately consider the impacts of an oil spill on fishing rights, hunting rights, or environmental justice, or the degree to which the pipeline’s effects are likely to be highly controversial.”<sup>181</sup>

While the federal court stepped in and temporarily halted the construction of the pipeline, there is still the larger question of how to strengthen scientific integrity in administrative processes in light of a culture that is increasingly hostile to and distrustful of science.

### III. FIGHTING THE NEW REALITY

More than ever before, the Trump Administration has managed to alter reality in astonishing ways through reducing enforcement, decreasing transparency, and disregarding science. Certainly, this new reality within EPA will lead to more ignored communities like Flint, Michigan, a disregard for the statistics and science that are critical for assessing risk, or even the continued false dichotomy of economy versus environment like we see in coal country. The question we must ask now is what could serve as a “check” on this dark version of what EPA once was?

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<sup>178</sup> Memorandum on Construction of the Dakota Access Pipeline, 82 Fed. Reg. 11129, 11129 (Jan. 24, 2017).

<sup>179</sup> See Hersher, *supra* note 172.

<sup>180</sup> See Spencer S. Hsu, *Federal Judge Orders Environmental Review of Dakota Access Pipeline*, WASH. POST (June 14, 2017), [https://www.washingtonpost.com/local/public-safety/federal-judge-orders-environmental-review-of-dakota-access-pipeline/2017/06/14/6de94c98-5152-11e7-b064-828ba60fbb98\\_story.html](https://www.washingtonpost.com/local/public-safety/federal-judge-orders-environmental-review-of-dakota-access-pipeline/2017/06/14/6de94c98-5152-11e7-b064-828ba60fbb98_story.html).

<sup>181</sup> Memorandum Opinion, *Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers*, No. 1:16-cv-1534-JEB (D.D.C. June 14, 2016).

### A. *Ratcheting up Judicial Scrutiny*

The EPA was created to enforce laws to protect human health and the environment. The process of enforcement often relies upon EPA referring environmental violations to the Justice Department for civil prosecution.<sup>182</sup> Then, generally speaking, consent decrees are lodged in federal court to essentially settle the violation.<sup>183</sup> Without civil judicial enforcement, federal environmental statutes cannot serve their purpose.

On August 10, 2017, the Environmental Integrity Project<sup>184</sup> released a report indicating that former Administrator Pruitt's EPA was woefully behind in environmental enforcement compared to the past three administrations.<sup>185</sup> Records show a 60 percent drop in civil enforcement penalties against polluters during President Trump's first six months in office.<sup>186</sup> His Justice Department lodged twenty-six civil cases resolving violations of federal environmental statutes for a combined total of \$12 million, as opposed to an average of \$30 million during the Obama, G.W. Bush, and Clinton years.<sup>187</sup> This marked decrease supports former Administrator Pruitt's goal of preventing EPA from appearing in the courtroom against industry violators. In early 2017, Mandy Gunasekara, President Trump's senior advisor for air and radiation, remarked "[t]he administrator has been very, very clear that he wants us to do what we can to keep the decisions we should

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<sup>182</sup> See *Basic Information on Enforcement*, EPA, <https://www.epa.gov/enforcement/enforcement-basic-information> (last visited Nov. 20, 2018).

<sup>183</sup> ENVTL. INTEGRITY PROJECT, ENVIRONMENTAL ENFORCEMENT UNDER TRUMP (Aug. 10, 2017), <http://www.environmentalintegrity.org/wp-content/uploads/2017/08/Enforcement-Report.pdf>. The process of enforcement often involves identifying the responsible parties, negotiating with them regarding cleanup costs, and a possible resulting order to clean up or hire another party to perform the remediation. *Basic Information on Enforcement*, EPA, <https://www.epa.gov/enforcement/enforcement-basic-information> (last visited Nov. 20, 2018).

<sup>184</sup> The Environmental Integrity Project is a nonpartisan, nonprofit organization established in March of 2002 by former EPA enforcement attorneys to advocate for effective enforcement of environmental laws. See *About Us*, ENVTL. INTEGRITY PROJECT, <https://www.environmentalintegrity.org/who-we-are/> (last visited Oct. 4, 2018).

<sup>185</sup> See *id.*; see also Madeleine Perkins, *Pruitt's EPA isn't Collecting Millions of Dollars from Polluters – Here's How it Could Land Him in Court*, BUS. INSIDER (Aug. 10, 2017), <http://www.businessinsider.com/scott-pruitt-epa-lawsuits-courts-2017-7>.

<sup>186</sup> ENVTL. INTEGRITY PROJECT, *supra* note 183, at 1.

<sup>187</sup> See *id.*

be making out of courts.”<sup>188</sup>

This goal is short-sighted because it could still put EPA right back in court. “Any final action by EPA . . . is subject to judicial review in the courts. So the notion that EPA can reduce litigation unilaterally is fantasy,” said former EPA regional counsel Nancy Marvel.<sup>189</sup> The judiciary is charged with acting as a referee on agencies like EPA to make sure that they are following Congressional intent in implementing environmental laws.<sup>190</sup> When the Supreme Court decided *Chevron U.S.A. Inc. v. Natural Resources Defense Council* in 1984, it acknowledged the judicial oversight but limited it by giving considerable deference to an agency’s interpretation of an ambiguous statutory requirement.<sup>191</sup> If Congress has not addressed a specific question, is silent, or leaves a gap for the agency to fill, a court must only decide whether the agency’s interpretation is reasonable and not arbitrary or capricious, or in other words, not an abuse of its discretion.<sup>192</sup> Of course, *Chevron* is consistent with the notion that judges should not make policy decisions and should allow agencies to make policy judgments given their technical expertise.<sup>193</sup> This judicial deference works well when an agency acknowledges and promotes scientific expertise.<sup>194</sup> And, it would work well if EPA were, in fact, allowing experts to carry out the intent of Congress and inform its decisions.<sup>195</sup>

However, when an agency becomes a “microcosm of a larger political debate,” it is subject to the dangers of both agency capture and agency self-interest<sup>196</sup>—dangers that the Supreme Court did not intend when deciding *Chevron*. Agency capture occurs when

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<sup>188</sup> See *id.* Specifically, the comment was made by Gunasekara at a coal conference in May 2017. See Madeleine Perkins, *Senior Policy Advisor Says Trump’s EPA Chief is Here to Help the Coal Industry*, BUS. INSIDER (May 4, 2017), <https://www.businessinsider.com/scott-pruitt-coal-industry-epa-2017-5>.

<sup>189</sup> Perkins, *supra* note 185.

<sup>190</sup> See Salzman, *supra* note 16, at 67.

<sup>191</sup> See *Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

<sup>192</sup> See *id.* at 843.

<sup>193</sup> See Salzman, *supra* note 16, at 72.

<sup>194</sup> See *id.* at 67. Salzman and Thompson discuss several models of administrative agencies, one of which is called *scientific expertise*, “where technocrats in white jackets populate the agency.” *Id.*

<sup>195</sup> See *id.* at 67.

<sup>196</sup> See *id.*

the agency closely aligns itself with the industries that it is supposed to regulate such that the public interest is lost in the process.<sup>197</sup> Agency self-interest occurs when the agency acts out of bureaucratic self-interest to increase its own power.<sup>198</sup> Both of these dangers manifest themselves when EPA drastically decreases its civil enforcement penalties,<sup>199</sup> or pushes for business-friendly, environmentally-harmful projects that are friendly to chemical, coal, or oil and gas companies.

With the brazen, continual effort by EPA to become more “industry-friendly,”<sup>200</sup> judges should grant little deference and a strict, in-depth review of the agency action should be utilized to uncover the motivations for its decisions.<sup>201</sup> Therefore, in every lawsuit filed against EPA under the Trump Administration, courts should *carefully* scrutinize EPA’s procedural failures and substantive decisions.

Where we will likely see these legal challenges is when: (1) EPA does not do enough to meet the obligations of federal environmental statutes, (2) EPA starts creating new regulations or exercises its rulemaking authority, or (3) EPA fails to comply with a court order to act by a certain date.<sup>202</sup>

Federal environmental laws set forth obligations and often deadlines for EPA to meet those obligations.<sup>203</sup> For example, if a state fails to submit a State Implementation Plan (SIP) which demonstrates how it will meet the National Ambient Air Quality Standards (NAAQS) set by the Clean Air Act,<sup>204</sup> EPA must develop a plan for the state.<sup>205</sup> If EPA does not fulfill its obligation, a U.S. citizen can file a citizen suit to make them do so.<sup>206</sup> Former EPA regional counsel Nancy Marvel says that

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<sup>197</sup> *See id.*

<sup>198</sup> *See id.* at 67–68.

<sup>199</sup> *See id.* at 68.

<sup>200</sup> *See, e.g.,* Perkins, *supra* note 188.

<sup>201</sup> *See* Salzman, *supra* note 16, at 68.

<sup>202</sup> *See* Perkins, *supra* note 185.

<sup>203</sup> *See id.*

<sup>204</sup> *See* Air Quality Criteria and Control Techniques, 42 U.S.C. § 7408(a)(1). NAAQS are set for each criteria pollutant to “protect the public health” with an “adequate margin of safety.” *Id.*; *see also* State Implementation Plans for National Primary and Secondary Ambient Air Quality Standards, 42 U.S.C. § 7410.

<sup>205</sup> *See* Clean Air Act § 110(c)(1), 42 U.S.C. § 7410(c)(1) (2006).

<sup>206</sup> *See* Perkins, *supra* note 185. In fact, the Union of Concerned

litigation is inevitable because it is difficult to meet those deadlines even if EPA is operating with a full staff and resources, which is hardly the case.<sup>207</sup> Additionally, when EPA proposes a new regulation, it must comply with the Administrative Procedure Act's (APA) procedural requirements and put the regulation through the appropriate notice and comment procedures.<sup>208</sup> When the final rules are challenged, a process which former Administrator Pruitt knows well,<sup>209</sup> litigation ensues, triggering scrutiny of the agency action.<sup>210</sup> Finally, if EPA fails to comply with a court order by its deadline, the Agency could be held in contempt of court, although it is unclear whether anything would happen given that EPA is possibly protected under sovereign immunity.<sup>211</sup> The Agency certainly has failed to comply with numerous deadlines in the recent past.<sup>212</sup>

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Scientists filed a lawsuit in 2018, which argues that the move to ban scientists who serve on EPA advisory boards if they receive federal grants violates the Federal Advisory Committee Act. *See Protect Democracy and Union of Concerned Scientists File Suit Against EPA Over Attempt to Delegitimize Science*, PROTECT DEMOCRACY, (Jan. 23, 2018), <https://protectdemocracy.org/update/pd-ucs-epa-advisory-committee-member/>.

<sup>207</sup> See Perkins, *supra* note 185; see also Rafi Letzter, *Trump's Budget Could Cut 3,000 Staff from the EPA, Report Suggests*, BUS. INSIDER (Mar. 1, 2017), <http://www.businessinsider.com/trump-budget-epa-lay-off-2017-3>.

<sup>208</sup> See 5 U.S.C. § 553.

<sup>209</sup> See Raffi Letzter, *Trump's EPA Pick, Scott Pruitt, Has Filed 14 Lawsuits Against the EPA*, BUS. INSIDER (Jan. 18, 2017), <http://www.businessinsider.com/trump-epa-pick-scott-pruitt-2017-1>. Pruitt recused himself from 12 of those lawsuits in May 2017. *See* Rene Marsh and Miranda Greene, *EPA's Pruitt Recuses Himself from Environmental Lawsuits*, CNN (May 6, 2017), <https://www.cnn.com/2017/05/06/politics/pruitt-recusal-epa-litigation/index.html>.

<sup>210</sup> A court may choose to apply a different standard of review, depending on the agency action. Formal rule-making is governed by *Chevron* deference while non-legislative rule-making or the publication of guidance documents or interpretive rules are governed by *Skidmore* deference, a lower level of deference than *Chevron*. *See Chevron U.S.A. Inc. v. Nat. Res. Def. Council*, 467 U.S. 837 (1984); *see also United States v. Mead Corp.*, 533 U.S. 218, 234–38 (2001).

<sup>211</sup> See Perkins, *supra* note 185.

<sup>212</sup> For example, 14 state attorneys general filed suit against EPA in 2017, accusing the agency of violating the Clean Air Act by delaying air quality standards for ground-level ozone pollution. *See Attorney General Files Suit Over Trump Administration's Violation of Clean Air Act*, WASH. ST. OFF. OF THE ATT'Y GEN. (Dec. 5, 2017), <https://www.atg.wa.gov/news/news-releases/attorney-general-files-suit-over-trump-administration-s-violation-clean-air-act>; *see also* Complaint, *California v. Pruitt*, No. 3:17-cv-06936 (N.D. Cal. Dec. 5, 2017),

Even if the Trump Administration EPA's actions are subject to judicial oversight, it is questionable whether *Chevron* deference would truly serve its purpose, which is to support the rule of law by deferring to the technical expertise of its disinterested scientific experts.<sup>213</sup> If the agency is run by officials who closely align themselves with industry while dismantling its scientific voice, then *Chevron* deference ceases to work as it should. In other words, if the courts are deferring to an expertise that no longer exists, then the courts will no longer be holding anyone in the agency accountable.<sup>214</sup> Here, we must question whether deference is even necessary if the agency is no longer relying on scientific evidence. Perhaps the original notion that the courts should defer to an agency with scientific expertise because judges lack scientific knowledge made sense at one point in history.<sup>215</sup> But, it can be argued that we no longer live in a world where agencies make evidence-based decisions.

It is also ironic that, over the past twenty-five years, our judicial system has continuously demonstrated its ability to evaluate scientific data in the courtroom when litigants present expert witnesses to testify about complex scientific matters.<sup>216</sup> In 1993, in *Daubert v. Merrill Dow Pharmaceuticals*, the U.S. Supreme Court assigned a "gatekeeper" role to the judiciary, asking that courts scrutinize expert evidence for both reliability and relevance.<sup>217</sup> Most importantly, the focus was on whether the methodology underlying the expert's conclusion was scientifically

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[https://agportal-s3bucket.s3.amazonaws.com/uploadedfiles/Another/News/Press\\_Releases/filed\\_complaint\\_with\\_attachments.pdf](https://agportal-s3bucket.s3.amazonaws.com/uploadedfiles/Another/News/Press_Releases/filed_complaint_with_attachments.pdf). And, on February 22, 2018, the Center for Biological Diversity sent EPA a notice of intent to sue the Agency, because of its failure to ensure that Louisville, Kentucky had enforcements limiting soot pollution, a deadline that passed 5 years ago. See *Lawsuit Launched to Fight Trump EPA's Delays in Protecting Louisville from Deadly Soot Pollution*, CTR. FOR BIOLOGICAL DIVERSITY (Feb. 22, 2018), [https://www.biologicaldiversity.org/news/press\\_releases/2018/louisville-soot-02-22-2018.php](https://www.biologicaldiversity.org/news/press_releases/2018/louisville-soot-02-22-2018.php).

<sup>213</sup> See Ann R. Klee, *Rebuilding Accountability in the Administrative State*, THE REG. REV. (Sept. 11, 2014), <https://www.theregreview.org/2014/09/11/11-klee-chevron-rebuilding-accountability/>.

<sup>214</sup> See *id.* at 3.

<sup>215</sup> See *id.*

<sup>216</sup> See *id.*; see also *Daubert v. Merrill Dow Pharm.*, 509 U.S. 579 (1993).

<sup>217</sup> See *Daubert*, 509 U.S. at 597.

valid.<sup>218</sup> This methodology is assessed by a number of factors including degree of widespread acceptance within the scientific community and whether the research has been subjected to peer review and publication.<sup>219</sup> The focus is less on the conclusion, but rather the ability of the methodology to withstand scrutiny by the scientific community.<sup>220</sup> In other words, the more the methodology is shared, tested, and accepted by others with a similar expertise, the more reliable it becomes.<sup>221</sup> With EPA's increasingly excluding academic scientists from the conversation, a court reviewing its decisions should do more, just like it does under *Daubert*.<sup>222</sup> A court should demand scientific rigor and evidence from EPA instead of simply looking at whether the Agency was "clearly wrong" or arbitrary and capricious in its interpretation.<sup>223</sup>

Additionally, Congress should also revisit and amend the APA to better delineate the review of agency decisions from agencies that no longer favor scientific expertise in policy and decisionmaking.<sup>224</sup> Thus, perhaps the solution would be to provide less deference than what was dictated in *Chevron*<sup>225</sup> to agencies that are clearly subject to agency capture and who have outwardly taken steps in remove scientific viewpoints in favor of industry-heavy influence. Demanding more rigor from agencies will be crucial as EPA continues to evolve.

#### B. *Unveiling Secrecy with the Freedom of Information Act*

The Freedom of Information Act (FOIA)<sup>226</sup> was intended to be a simple process and an incredibly powerful tool that allows any citizen to request information possessed by the Executive Branch of the government.<sup>227</sup> So, it follows that FOIA facilitates

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218 *See id.* at 599.

219 *See id.* at 580.

220 *See id.*

221 *See id.*

222 *See* Klee, *supra* note 213.

223 *See id.*

224 *See id.*

225 Currently, under *Chevron* analysis, courts examine "whether the agency's answer is based on a permissible construction of the statute." *Chevron*, 467 U.S. at 843.

226 Freedom of Information Act, 5 U.S.C. § 552 (2006), amended by OPEN Government Act of 2007, 5 U.S.C. § 552 (Supp. II 2008).

227 *See* Justin Cox, *Maximizing Information's Freedom: The Nuts, Bolts, and Levers of FOIA*, 13 N.Y.C. L. REV. 387, 387 (2010).

access to agency records, so long as a request “reasonably describes” the information sought.<sup>228</sup> Unfortunately, many administrative agencies, like EPA, have developed a backlog of requests, which results in extremely long processing delays and deficient responses.<sup>229</sup> FOIA requires that an agency makes a determination on a request within twenty business days.<sup>230</sup> And, while an agency can withhold information based on nine exemptions,<sup>231</sup> which are typically “narrowly construed,” there is a presumption that an agency must disclose records.<sup>232</sup>

Unfortunately, it is rare for an agency to process requests in a timely manner.<sup>233</sup> For example, in 2008, the Department of Homeland Security (DHS) reported processing times of 87 days for a simple request and 374 days for a complex request. To put these numbers in perspective, there are typically 220 business days in a year.<sup>234</sup> Additionally, agencies are not supposed to wait for requests before making information available.<sup>235</sup> FOIA mandates that agencies take steps to proactively disclose records on their website that agencies should know will be of general interest to the public.<sup>236</sup>

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<sup>228</sup> See 5 U.S.C. § 552(a)(3)(A).

<sup>229</sup> See, e.g., Valerie Volcovici, *Top House Democrat Presses EPA's Pruitt on Records Request Delays*, REUTERS (June 11, 2018), <https://www.reuters.com/article/us-usa-epa-foia/top-house-democrat-presses-epas-pruitt-on-records-request-delays-idUSKBN1J7233>; Candace Butera, *A Watchdog Group Highlights the EPA's Delayed FOIA Responses*, PAC. STANDARD (Feb. 26, 2018), <https://psmag.com/environment/watchdog-group-highlights-epa-delayed-foia-responses>.

<sup>230</sup> See 5 U.S.C. § 552(a)(6)(A)(i).

<sup>231</sup> See 5 U.S.C. § 552(b)(1)–(9). There are also 3 “exclusions” from the requirements of the FOIA in addition to the exemptions. See *id.* at § 552(c)(1)–(3).

<sup>232</sup> See *id.*

<sup>233</sup> See Cox, *supra* note 227, at 394.

<sup>234</sup> See *id.*; see also U.S. DEP'T OF HOMELAND SECURITY, 2008 ANNUAL FREEDOM OF INFORMATION ACT REPORT TO THE ATTORNEY GENERAL OF THE UNITED STATES 12 (2008), [http://www.dhs.gov/xlibrary/assets/foia/privacy\\_rpt\\_foia\\_2008.pdf](http://www.dhs.gov/xlibrary/assets/foia/privacy_rpt_foia_2008.pdf).

<sup>235</sup> See *id.*

<sup>236</sup> See *id.*; see also 5 U.S.C. § 552(a)(2)(D) (“Each agency, in accordance with published rules, shall make available for public inspection and copying copies of all records, regardless of form or format, which have been released to any person under paragraph (3) and which, because of the nature of their subject matter, the agency determines have become or are likely to become the subject of subsequent requests for substantially the same records”).

As of October 2017, EPA started with a backlog from the Obama Administration with 652 open FOIA requests.<sup>237</sup> However, since President Trump took office, the Agency has experienced an enormous surge of FOIA requests under the leadership of Former Administrator Pruitt.<sup>238</sup> This flood of requests came amid increasing criticisms of the secrecy surrounding Pruitt's meetings, travel, and policy decisions.<sup>239</sup> As of February 2018, there were a total of fifty-five public records lawsuits filed against EPA for failing to release information in response to FOIA requests.<sup>240</sup> The documents being sought range from EPA's reversal of the Obama Administration's climate change and water rule decisions to pesticide approvals to Pruitt's schedule and travel records.<sup>241</sup> EPA's refusal to release former Administrator Pruitt's schedule contradicted the past policy of disclosing the Administrator's schedule; as did Pruitt's eavesdropping-proof chamber.<sup>242</sup> According to data analyzed by the non-partisan group Project on Government Oversight, EPA has been uncharacteristically slow to close requests that deal with Pruitt's activities.<sup>243</sup> While the slow response is not atypical of agency action under previous

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<sup>237</sup> See *EPA is Clearing Out the Agency's FOIA Backlog*, EPA, (Nov. 21, 2017), <https://www.epa.gov/newsreleases/epa-clearing-out-agencys-foia-backlog>.

<sup>238</sup> See Emily Holden, *Anti-Secrecy Lawsuits Soaring Against Pruitt's EPA*, POLITICO (Feb. 26, 2018), <https://www.politico.com/story/2018/02/26/pruitt-epa-secrecy-lawsuits-environment-355842>.

<sup>239</sup> See *id.*

<sup>240</sup> See *id.*

<sup>241</sup> See *id.* Taxpayer-funded travel for Pruitt and his top aides during in early June 2018 cost at least \$90,000, according to information obtained by the Environmental Integrity Project under the Freedom of Information Act. That figure does not account for the costs of Pruitt's round-the-clock security detail, which have not been disclosed. See Juliet Eilperin & Brady Dennis, *First-Class Travel Distinguishes Scott Pruitt's EPA Tenure*, WASH. POST (Feb. 11, 2018), [https://www.washingtonpost.com/national/health-science/first-class-travel-distinguishes-scott-pruitts-epa-tenure/2018/02/11/5bb89afc-0b7d-11e8-8b0d-891602206fb7\\_story.html](https://www.washingtonpost.com/national/health-science/first-class-travel-distinguishes-scott-pruitts-epa-tenure/2018/02/11/5bb89afc-0b7d-11e8-8b0d-891602206fb7_story.html). Public pressure in response to the news of Pruitt's first-class flights prompted him to fly coach despite "concerns for his safety." See Tom DiChristopher, *EPA Chief Scott Pruitt Says He'll Fly Coach Following Scrutiny Over First-Class Flights*, CNBC (Mar. 1, 2018), <https://www.cnbc.com/2018/03/01/epa-chief-scott-pruitt-says-hell-fly-start-flying-coach.html>.

<sup>242</sup> See Holden, *supra* note 238.

<sup>243</sup> See Andrew Bergman, *EPA Drags its Feet with Records Requests Aimed at Scott Pruitt's Office*, PROJECT ON GOV'T OVERSIGHT (Feb. 25, 2018), <http://www.pogo.org/blog/2018/02/epa-drags-its-feet-with-foia-records-requests-aimed-at-scott-pruitts-office.html>. Records show that the office has closed only 17 percent of the requests to the Administrator's Office. See *id.*

administrations, the surge in requests is phenomenal: a 400 percent increase in requests to EPA Administrator's Office.<sup>244</sup> Regardless of what can be attributed to the slowdown in the response and the uptick of requests, the inevitable question remains: Why take such a long time?<sup>245</sup> Eric Shaeffer, Director of the Environmental Integrity Project, told Politico, "I think the idea is make it take a long time. Why would you do that? Maybe that will result in fewer requests and less disclosure and maybe [they will] be out of here before some of this stuff starts turning up."<sup>246</sup>

The secrecy behind Administrator Pruitt's meetings and policy decisions were arguably a key indicator of agency capture. It is not uncommon, for environmental enforcement to take place with low visibility, lacking the regularity and transparency of agency rulemaking.<sup>247</sup> Rulemaking and policy decisions call for close interactions between the regulator, in this case EPA, and individual companies. However, continual deference to industry input at the expense of scientific input is abnormal and unique to President Trump's EPA.<sup>248</sup> If these interactions are occurring as reported, this further suggests that aggressive judicial oversight of the Agency is needed in order to counteract distorted agency decisionmaking for the sake of the public interest it should be protecting.<sup>249</sup>

As Professor Thomas Merrill stated, "by forcing agencies to adopt an administrative process that is more open and to give greater consideration to underrepresented viewpoints in that process, courts may be able to counteract the distortions. . . ."<sup>250</sup> This is particularly important, given the replacement of a scientific voice on advisory panels with industry who "occupy a favored position" granting them "an advantage in influencing agency decisions."<sup>251</sup> The risk for vulnerable populations subject to environmental racism exponentially increases because of the lack

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<sup>244</sup> *See id.*

<sup>245</sup> *See* Holden, *supra* note 238.

<sup>246</sup> *See id.*

<sup>247</sup> *See* Joel A. Mintz, *Has Industry Captured the EPA?: Appraising Marver Bernstein's Captive Agency Theory After 50 Years*, 17 *FORDHAM ENVTL. L. REV.* 1, 3 (2005).

<sup>248</sup> *See id.*

<sup>249</sup> *See id.* at 17 (referencing Professor Thomas Merrill).

<sup>250</sup> *Id.* at 17; *see also* Thomas Merrill, *Capture Theory and the Courts: 1967 to 1983*, 72 *CHI.-KENT L. REV.* 1039, 1052 (1997).

<sup>251</sup> *See id.* at 19.

of access to information. While it can be argued that many agencies operate without enough transparency, the threat here is substantial, because environmental issues are inherently complex and opaque and thus the general public has a difficult time understanding what is truly at stake in their communities.<sup>252</sup> Without an objective scientific voice and transparency, citizens will not know the true effects of these environmental decisions until the effects are painfully evident and potentially irreversible.

### C. *Using Science to Inform and Empower*

In January 2017, the Trump Administration issued a series of memoranda that arguably served as “gag orders” on agencies who place a strong emphasis on science, including EPA, USDA, and the Department of Health and Human Services.<sup>253</sup> While it is not uncommon for a new administration to work on messaging throughout its agencies, this action, along with the scrubbing of almost all mention of climate science and climate change policy from the agency websites, has alarmed scientists.<sup>254</sup> In October 2017, Administrator Pruitt continued to diminish the voice and role of scientists within the Agency by blocking EPA grant awardees, many of whom are leading researchers, from serving on the Agency’s advisory boards.<sup>255</sup> His reasoning behind the move was to eliminate bias or conflict of interest, although he has yet to apply the same reasoning to members of EPA-regulated industries who hold advisory positions.<sup>256</sup> Many in the scientific community argue that this will weaken the scientific rigor of the advisory panels.<sup>257</sup> While the American Chemistry Council hails the decision as a way to “help ensure EPA’s scientific review panels are well balanced with perspectives from qualified scientists of diverse backgrounds,” Professor Swackhamer, former chair of the

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<sup>252</sup> See *id.* at 18.

<sup>253</sup> See Coral Davenport, *Agencies Told to Halt External Communications*, N.Y. TIMES (Jan. 25, 2017), <https://www.nytimes.com/2017/01/25/us/politics/some-agencies-told-to-halt-communications-as-trump-administration-moves-in.html>.

<sup>254</sup> See *id.*

<sup>255</sup> See Warren Cornwall, *Trump’s EPA has Blocked Agency Grantees from Serving on Science Advisory Panels. Here is what it Means*, SCI. MAG. (Oct. 31, 2017), <http://www.sciencemag.org/news/2017/10/trump-s-epa-has-blocked-agency-grantees-serving-science-advisory-panels-here-what-it>.

<sup>256</sup> See *id.*

<sup>257</sup> See *id.*

#### Advisory Board disagreed:

The move to remove scientists with EPA funding is, simply put, scientific censorship. He [Pruitt] is applying this directive in the name of ethics, when in fact he is only applying it to independent academic scientists and not to industry, who may in fact have a much greater conflict of interest. Current EPA ethics practices do not allow a scientist to comment or advise on a subject they are funded on, so [ ] this directive is totally unnecessary and clearly political, not ethical. By doing this, he is ensuring a board that will back up his very selective use of science that is used to support his policies—he does not want and is eliminating independent science advice.<sup>258</sup>

It is unlikely that the solution to this censorship of the scientific voice will come from our leaders in government. It is also unlikely that the solution will come from scientists, as they have long played a more passive and objective role, relying on policymakers to inform the public of the science and how it impacts public health. However, the scientific community can restore public trust by continuing to identify mistruths, false statistics, and false dichotomies like coal jobs versus the environment.<sup>259</sup> This means that scientists and science-based advocacy groups should take on a more active role in educating communities, particularly those communities that are more susceptible to environmental harms. Part of public education entails identifying mistruths as they are perpetuated, and effectively communicating research in a digestible way that reaches wider segments of society.<sup>260</sup>

#### D. *Lessons from the Civil Rights Movement*

The civil rights movement was both a social and a legislative revolution in the United States.<sup>261</sup> Environmental justice often

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<sup>258</sup> See *id.*

<sup>259</sup> See, e.g., Charles D. Kolstad, *What is Killing the US Coal Industry?*, STAN. INST. FOR ECON. POL'Y RES. (Mar. 2017) <https://siepr.stanford.edu/research/publications/what-killing-us-coal-industry> (arguing that economic growth, increased productivity, and cheap gas, among other factors, are responsible for coal-industry decline and job losses).

<sup>260</sup> See *Communication Best Practices*, UNION OF CONCERNED SCIENTISTS, <https://www.ucsusa.org/take-action/science-network/general-communication-best-practices> (last visited Feb. 25, 2018).

<sup>261</sup> See Devon Hudson MacWilliam, *Achieving Environmental Justice: Applying Civil Rights Strategies to Environmental Justice* (Apr. 28, 2009) (unpublished Master's thesis, Georgetown University), <https://repository.library.georgetown.edu/bitstream/handle/10822/553354/macwilliamDevonH>

finds its roots in the civil rights movement (1954–1965); yet advocates of environmental justice have struggled for decades to effect any comparable change. Civil rights advocates found powerful partners in places that we have yet to fully realize in the environmental justice movement. In 1954, the U.S. Supreme Court decided *Brown v. Board of Education*,<sup>262</sup> signaling to those in the movement that they had powerful support in the judiciary.<sup>263</sup> And slowly, legislation like the Civil Rights Act of 1964,<sup>264</sup> the Voting Rights Act of 1965,<sup>265</sup> and the Fair Housing Act of 1968,<sup>266</sup> as well as hundreds of court decisions, expanded protections to African Americans.<sup>267</sup> Of course, the protective rights of Title VI of the Civil Rights Act of 1964 should extend to environmental justice, but have not been an effective legal tool because in order to be successful, a plaintiff must prove discriminatory intent.

Aside from organizing community groups to protest, the movement must find new friends in the legislative and judicial branches in order to overcome the ever-apparent obstacles erected by EPA. In October 2017, Senator Cory Booker introduced the Environmental Justice Act of 2017,<sup>268</sup> which proposed to strengthen legal protections against environmental injustices for low-income communities, indigenous populations, and communities of color.<sup>269</sup> The bill has been endorsed by more than forty public health and environmental justice organizations and works to expand environmental protections in several ways:<sup>270</sup>

- It would codify and expand the 1994 Executive Order on Environmental Justice, effectively protecting it from being revoked by future Presidents.
- It would codify the National Environmental Justice

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udson.pdf.

<sup>262</sup> 347 U.S. 483 (1954).

<sup>263</sup> See Jon Else, *The Civil Rights Movement had One Powerful Tool that We Don't Have*, THE NATION (Mar. 27, 2017), <https://www.thenation.com/article/the-civil-rights-movement-had-one-powerful-tool-that-we-dont-have/>.

<sup>264</sup> Pub. L. No. 88-352, 78 Stat. 241 (1964)

<sup>265</sup> 52 U.S.C. § 10101 (1965).

<sup>266</sup> 42 U.S.C. § 1996(b) (1968).

<sup>267</sup> See Else, *supra* note 263.

<sup>268</sup> See H.R. 270, 115th Cong. (2017).

<sup>269</sup> See Booker Announces Landmark Environmental Justice Bill, U.S. SEN. CORY BOOKER, (Oct. 23, 2017), [https://www.booker.senate.gov/?p=press\\_release&id=685](https://www.booker.senate.gov/?p=press_release&id=685).

<sup>270</sup> See *id.*

Advisory Council and grant programs such as Environmental Justice Small Grants and CARE grants, which are currently threatened.

- It codifies EPA guidance on enhancing the Agency's consultations with Native American tribes where tribal treaty rights may be affected by a proposed action.
- It would require EPA to consider cumulative impacts of Clean Air Act and Clean Water Act permitting decisions, which has long been ignored, resulting in a high concentration of polluters in specific areas, such as Cancer Alley in Louisiana.
- It would allow citizens like those in Flint, Michigan to bring common law claims, statutory claims for damages, and request injunctive relief.
- Finally, it would overrule the U.S. Supreme Court decision in *Alexander v. Sandoval*<sup>271</sup> and would allow an individual to bring a Civil Rights action against an entity for discriminatory practices instead of relying on the agency to do so on their behalf.<sup>272</sup>

The bill represents a valiant effort to prevent the unraveling of EPA and its office of Environmental Justice. However, given the current political makeup of Congress and the current policies of the Trump Administration, the bill will likely not make it to the floor. Yet, the proposed bill still accomplishes several important things: (1) it reminds us that there is a need for legislation with "teeth" that protects vulnerable communities from the political whims of an administration desperate to gain the favor of the industries it regulates, and (2) it serves as a model of empowerment for individual citizens in the fight against agency capture.

#### CONCLUSION

Restoring and reaffirming the central role of science in agency processes is the only way to protect the environment and to continue to fight for vulnerable communities. If we hope to have an honest view of environmental harms, scientific evidence must not be buried and ignored. Scientists should continue to play a

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<sup>271</sup> 532 U.S. 273 (2001).

<sup>272</sup> See U.S. SEN. CORY BOOKER, *supra* note 269; see also H.R. 270, *supra* note 268.

crucial role in evaluating environmental risks when EPA is required to make decisions regarding risk management and regulatory enforcement. Without scientific involvement, the public generally, and vulnerable populations in particular, will be in increasing peril because risks to public health will go unannounced and be overlooked. Instead, we will be left with a cycle of environmental reactionism where Congress and agencies will only react in response to environmental disasters that outrage the public, rather than preventing harms before they occur. Unfortunately, by the time an environmental crisis receives national attention, it is often too late to fully remedy the harm. With the continuation of the same policies under Interim Administrator Wheeler,<sup>273</sup> without consulting scientists, the potential harm could very well be amplified with future acts like what we have seen with the repeal of the Clean Power Plan.

And Obama era scientists are rapidly being replaced with President Trump's nominees, who, themselves, have industry ties that could be considered biased if the same transparency in science rule were applied across the board.<sup>274</sup> According to documents obtained via recent FOIA requests, Tony Cox, a statistician with no medical training, is the new head of the Clean Air Scientific Advisory Committee and was nominated for the position by the U.S. Chamber of Commerce, which has sued EPA numerous times in order to loosen air pollution standards.<sup>275</sup> In an interview, Mr. Cox has commented that there is "no proof" that clean air saves lives.<sup>276</sup> And yet, many scientific studies have agreed that an increase in air particulate and ozone are directly linked to lung and heart issues, which can lead to hospitalizations and death—particularly in vulnerable populations.<sup>277</sup> Gretchen Goldman, a research director of the Center for Science and Democracy at the Union of Concerned Scientists responded by saying that "[a] lot of what (Cox) says is manufactured uncertainty. . . . If there's a

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<sup>273</sup> See Mike Henry, *Pruitt Successor Expected to Continue Controversial EPA Science Policies*, AM. INST. OF PHYSICS (July 12, 2018), <https://www.aip.org/fyi/2018/pruitt-successor-expected-continue-controversial-epa-science-policies>.

<sup>274</sup> See Jason Plautz, *Trump's Air Pollution Advisor: Clean Air Saves No Lives*, REVEAL (Oct. 24, 2018), <https://www.revealnews.org/article/trumps-air-pollution-adviser-clean-air-saves-no-lives/>.

<sup>275</sup> See *id.*

<sup>276</sup> See *id.*

<sup>277</sup> See *id.*

science-based rule, opponents will try to emphasize the uncertainty in the science to obscure its benefits.”<sup>278</sup>

Replacing the voices of scientists with the voices of regulated special interests eliminates an honest evaluation of scientific facts from the administrative process and creates additional scientific uncertainty which supports the questionable logic behind these new policy decisions, while likely creating more litigation over the role of science in these decisions.<sup>279</sup> According to the U.S. Supreme Court, expert witnesses must demonstrate expertise in the area and then prove that their analysis is based on sound methodology.<sup>280</sup> If this is the case, then why should we continue to allow political ideology to dictate how science is treated within an agency? Although there is always a shift in the ideology between administrations, this shift does not justify standing by while agencies tasked with protecting public health perpetuate lasting environmental harms. Now is the time to reexamine how the judiciary can best serve as a check on this imbalance. In the meantime, scientists must continue to advocate for the importance of a scientific voice in the debate over environmental protection.

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278 *Id.*

279 *See id.*

280 *See* *Daubert v. Merrill Dow Pharm.*, 509 U.S. 579 (1993).