# Adoption and Cooption of the Environmental Justice Issue Frame

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## Abstract

The concept of environmental justice has become a dominant frame for environmental policy agenda in the US federal government. Administrations from both parties have shifted attention from society-wide benefits and costs of environmental policy to the distribution of benefits and costs, both for regulation and industrial policy. However, as concepts of justice rooted in grass-roots advocacy and academia collide with the opportunity structure of federal policymaking and implementation, the term "environmental justice" has gained new meanings, including definitions rejected by most activists and absent from academic writing. While the adoption of environmental justice discourse is evidence of the movement's impact on policymaking, the new meanings of the phase make it difficult to assess the movement's impact on substantive policy outcomes.

Disaggregating the meanings of environmental justice can help us understand the puzzling consistency with which the term is used across presidential administrations and the large differences in the success of campaigns organized by different groups under the banner of environmental justice. Specifically, I take up three questions: (1) is the adoption of EJ rhetoric related to substantive policy change?; (2) how should we interpret these changes?; and (3) why are some groups more successful than others?

Analyzing the text of over 10,000 draft and final rules from 52 agencies and millions of public comments on these rules from 1993 to 2024, I build an empirically-rooted taxonomy of environmental justice claims made in the policy process, track changes in usage by advocates and policymakers over time, and assess the relationship between different types of claims and policy change. Leveraging within-organization variation in efficacy across multiple lobbying attempts, I find that when organizations successfully mobilize environmental justice issue frames (i.e., policymakers adopt environmental justice language after an organization pressures them to), they are more likely to achieve their substantive policy aims. However, this effect is mostly driven by large national advocacy organizations adopting environmental justice rhetoric to advance more traditional environmental policy agendas, not by the kind of environmental justice activists that social movement scholars write about. Moreover, the environmental justice frame is being used by advocates and policymakers to justify deregulatory policies as advancing economic development, including promoting timber harvesting and fossil fuel sector employment. This "cooption" partially explains consistency in the term's use across administrations. These findings highlight the importance of tracking changes in meanings and measuring substantive policy outcomes for assessing the impact of social movements on policy and policy implementation.

# 1  Introduction

Long marginalized in the US environmental movement, the concept of environmental justice (EJ) has become a near-dominant frame for the environmental policy agenda in the US federal government (E.O.14096, 2023). EJ was the dominant frame for environmental policy advanced both by President Biden ("Joe's Plan for a Clean Energy Revolution and Environmental Justice") and now Vice President Harris ("A Climate Plan For the People") as they sought the Democratic Party's nomination. Even strong critics of government regulation presume that EJ analysis will continue to shape policy in future Republican administrations (Dans, 2024, p. 441).

This frame—historically uniting various critics of mainstream utilitarian environmentalism around unequal distributions of environmental harms and amenities—has found a fit with policy agendas as both parties have shifted from basing policy proposals on society-wide benefits and costs toward a greater focus on the distribution of benefits and costs, both for regulation and, increasingly, industrial policy. Taylor (2012) describes a fusion of the American Indian Movement, Chicano movement, farmworker movement, civil rights movement, and union organizing:

> People of color [raised] social justice concerns such as self-determination, sovereignty, human rights, social inequality, loss of land base, limited access to natural resources, and disproportionate impacts of environmental hazards and linked them with traditional working-class environmental concerns such as worker rights and worker health and safety to develop an environmental justice agenda. (p. 1)

Like other movements, the EJ movement illustrates how groups attempt to use a particular way of framing policy issues (in this case, a particular phrase) as a vehicle to build coalitions and advance policy agendas. The original members of this coalition—activists fighting racialized geographies of environmental harms, settler colonialism, and hazardous working conditions—continue to organize under the environmental justice banner. But as it has gained political legitimacy, other groups increasingly frame their struggles as matters of environmental justice.

As concepts of justice rooted in grass-roots advocacy and academia collide with the opportunity structure of federal policymaking and implementation, environmental justice has gained new meanings. These changes include academics and activists linking issues such as GMO labeling (Gonzalez, 2011), police violence (Pellow, 2016), cosmetics (DiC, 2024), the location of parks (Boone et al., 2009), the location of dollar stores (Kavi et al., 2019), homelessness (Gamble, 2023), COVID-19 (Dean, 2022), science policy (Desikan et al., 2023), light pollution (Xiao et al., 2023) garbage collection (Bell and Sweeting, 2013), plastic pollution (Kefela, 2024), knowledge of earthquake risk (Reddy et al., 2023), and anything related to climate change (Resnik, 2022), including renewable

energy development [Whyte2023] to the environmental justice movement. These changes also include opponents of environmental regulation adopting definitions rejected by most activists and absent from academic writing. Both efforts to expand and coop the environmental issue frame are evidence of its power and legitimacy in environmental policymaking.

Issue definition matters because the mobilization or suppression of conflicts allocates power—" antagonists can rarely agree on what the issues are because power is involved in the definition" (Schattschneider, 1975). Changes in issue definition frequently precede major policy changes (Baumgartner and Jones, 1993).

While the adoption of environmental justice discourse is evidence of the movement's impact on policymaking discourse, the new and contested meanings of the phase make it difficult to assess the movement's impact on substantive policy outcomes because meaning may not be shared between policymakers and activists, or even among activists (Lester et al., 2001).

To systematically examine the impact of advocacy on policy, I focus on US federal agency rulemaking. Environmental justice is relevant to agency rulemaking in particular due to President Clinton's Executive Order 12898—"Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations"—directing all agencies to consider EJ implications of their actions and policies. Executive Orders or statements from agency heads in every administration have since interpreted and reinterpreted parts of EO 12898, all with direct implications for rulemaking.[1] Despite this Executive Order, not all draft or final rules address EJ. Those that do, however, tend to cite EO 12898 and use the phrase "environmental justice." For the same reason, commenters who critique draft rules also cite EO 12898 and use this language. Again, this is true both for movement activists and reactionary efforts to redefine the term.

In prior work, I show that environmental justice advocacy is associated with agencies adding EJ language and changing how they discuss it. However, these effects are driven by large national advocacy groups, not frontline EJ groups (Judge-Lord, 2021). These findings invite three further questions that I take up in this paper: (1) is the adoption of EJ rhetoric related to substantive policy change?; (2) how should we interpret these changes?; and (3) why are some groups more successful than others? The first and third questions require hand-coding a large number of documents related to advocacy campaigns and their success or failure in achieving the substantive policy changes they sought. The second and third questions require a taxonomy of different kinds of environmental justice claims raised by advocates or adopted by agencies. This taxonomy allows us to better

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[1]While EO 12898 does not itself create a right to sue agencies, courts may strike down rules for failing to comply with procedural requirements of the Administrative Procedure Act (APA) and National Environmental Policy Act (NEPA) if the agency fails to "examine the relevant data" or "consider an important aspect of the problem" (*Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 1983). This can include an agency's 12898 EJ analysis: "environmental justice analysis can be reviewed under NEPA and the APA" (*Communities Against Runway Expansion, Inc. v. FAA*, 2004).

interpret the impact of advocacy and assess whether unequal levels of success are related to group characteristics or the kind of environmental justice they seek.

Analyzing the text of over 10,000 draft and final rules from 52 agencies and 50 million public comments on these rules from 1993 to 2024, I build an empirically-rooted taxonomy of environmental justice claims made in the policy process, track changes in usage by advocates and policymakers over time, and assess the relationship between different types of claims and policy change.

Leveraging within-organization variation in efficacy across multiple lobbying attempts, I find that when organizations successfully mobilize environmental justice issue frames (i.e., policymakers adopt environmental justice language after an organization pressures them to), these organizations are more likely to achieve their substantive policy aims. However, this effect is mostly driven by large national advocacy organizations adopting environmental justice rhetoric to advance more traditional environmental policy agendas, not by the kind of environmental justice activists that social movement scholars write about.

The meanings of environmental justice raised by policy advocates vary widely. Beyond the original focus on environmental racism, advocates raising perceived environmental injustices now include almost any inequality across space (including differences across jurisdictions, urban and rural communities, and proximity to various kinds of infrastructure and (dis)amenities) or demographic identity group (including race, gender, age, income, sector of employment, native language, culture, and disability status).

These findings highlight the importance of tracking changes in meanings and measuring substantive policy outcomes for assessing the impact of social movements on policy and policy implementation.

## 2   Data

To systematically assess how often the environmental justice frame is used in federal rulemaking and what it means when it is, I first collect a dataset of all 14,938 draft and final rule pairs published from January 2005 through August 2024 [Note: Figure 1 totals for 2024 are partial year totals] by all 52 agencies that published at least one rule addressing environmental justice.[2] Of these, 3291 proposed rules and 4,738 final rules discuss the environmental justice implications of the rule. I also collect all public comments on these rules. 24,362 unique comments (excluding mass comment and petitioning campaigns) mention "environmental justice."

Figure 1 shows the rates of mentioning environmental justice for the primary time period for these data.

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[2]Because I focus on whether rules address commenter demands, I exclude proposed rules that were not finalized and final rules that were published without first taking comments on a draft.

**Figure 1:** Final Rules by Whether they Address Environmental Justice
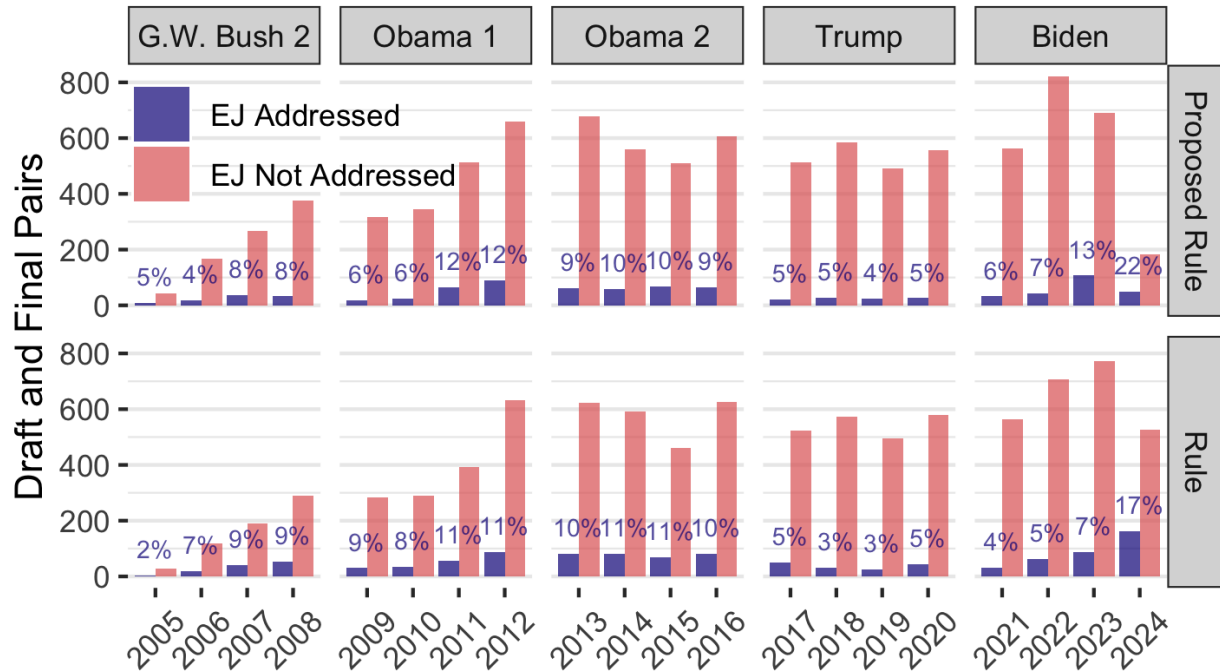


## 3 Puzzle

As shown in Figure 1, the rates of US federal agencies addressing environmental justice in final rules (as mandated by EO 12898) are low and surprisingly consistent across Republican and Democratic administrations, with similar, variation in the corresponding proposed (draft) rules. Thus, it is not simply a matter of public pressure forcing Republican administrations to match Democrats. Indeed,

Controlling for the scale of public pressure (*Log(Unique EJ Comments)*) and agency (Fixed effects in models 1 & 2, and each agency's prior *Ratio* of rules addressing EJ in models 3 & 4), responsiveness to demands to address EJ from public comments (*EJ Comment*) did not vary significantly across most administrations from G.W. Bush through Obama and Trump. Biden has slightly higher rates of responsiveness but no more than the Clinton administration.

Table 1 show estimates from a series of logit regression models predicting whether the agency will add text addressing EJ to a final rule when the draft rule did not mention EJ at all. Using estimates from Model 1 to predict responsiveness to commenters requesting that EJ be addressed at two agencies across administrations, Figure 2 shows surprisingly similar rates of responsiveness to comments raising (i.e., the difference between adding EJ text to final rules when comments raised it and minus baseline rates of adding EJ text.)

**Table 1:** Logit Regression Predicting Change in Rule Text

|                          | 1              | 2              | 3              | 4              |
|--------------------------|----------------|----------------|----------------|----------------|
| EJ Comment               | 1.987***       | 2.102***       | 2.393***       | 2.667***       |
|                          | (0.305)        | (0.385)        | (0.483)        | (0.469)        |
| Log(Unique EJ Comments+1)| 0.507+         | 0.531+         | 0.578*         | 0.504*         |
|                          | (0.263)        | (0.293)        | (0.225)        | (0.213)        |
| Agency EJ Ratio          |                |                | 6.099***       | 6.387***       |
|                          |                |                | (0.336)        | (0.358)        |
| Clinton                  | −0.081         | −0.074         | 0.158          | 0.135          |
|                          | (0.552)        | (0.559)        | (0.642)        | (0.645)        |
| Bush                     | −0.940***      | −0.956***      | −0.823***      | −0.871***      |
|                          | (0.120)        | (0.124)        | (0.220)        | (0.220)        |
| Obama                    | −0.989***      | −0.977***      | −0.788***      | −0.807***      |
|                          | (0.227)        | (0.236)        | (0.163)        | (0.164)        |
| Trump                    | −1.351**       | −1.296**       | −1.114***      | −1.100***      |
|                          | (0.420)        | (0.415)        | (0.260)        | (0.261)        |
| Bush x EJ Comment        |                | 0.129          | −0.196         | 0.676          |
|                          |                | (0.622)        | (0.811)        | (0.821)        |
| Obama x EJ Comment       |                | −0.169         | −0.306         | 0.105          |
|                          |                | (0.410)        | (0.597)        | (0.576)        |
| Trump x EJ Comment       |                | −0.350         | −0.330         | −0.209         |
|                          |                | (0.731)        | (0.727)        | (0.689)        |
| Num.Obs.                 | 5665           | 5665           | 9565           | 9565           |
| AIC                      | 1782.2         | 1787.8         | 1948.3         | 1943.6         |
| BIC                      | 2047.9         | 2073.4         | 2027.1         | 2029.6         |
| Std.Errors               | by: agency     | by: agency     | IID            | IID            |
| FE: agency               | X              | X              |                |                |
| Dependent Variable       | EJ Text Added  | EJ Text Added  | EJ Text Added  | EJ Text Added  |

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Data subset to rules where the proposed rule did not mention environmental justice. Reference President = Biden.

**Figure 2:** Responsiveness to Pressure Address Environmental Justice where the Proposed Rule Did Address Environmental Justice
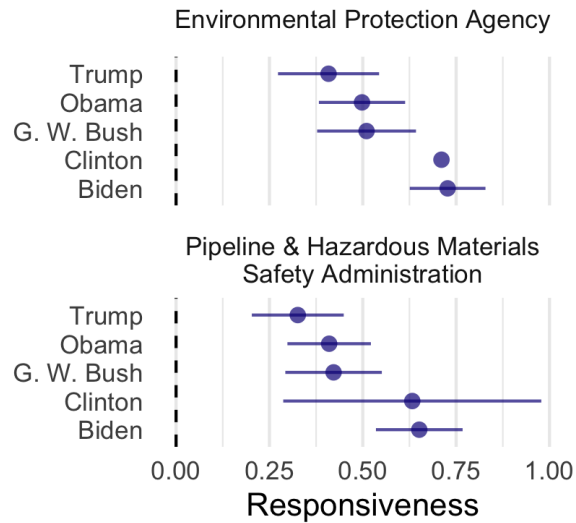


Consistency in mentions of environmental justice across administrations could have at least four different explanations:

1. Discussion of environmental justice in final rules could be cheap talk, pro forma compliance with EO 12898, unrelated to substantive policy agendas

2. Presidential administrations could have different definitions of environmental justice that reframe it in a way that is consistent with their policy agenda. This would allow the term to be used with similar frequency despite different meanings.

3. The phrase environmental justice may be used in ways that are less correlated with partisanship than its historic roots in environmental racism discourse.

4. Presidents do not perfectly control bureaucratic agents. The persistence of engagement (or non-engagement) with

These explanations are not mutually exclusive, and each may explain a portion of the lack of variation. For example, the Heritage Foundation's Project 2025: Mandate for Leadership report does not propose simply eliminating the EPA's Office of Environmental Justice and External Civil Rights, as it does with many agencies and offices. Instead, it suggests that the staff be reallocated to the Office of the Administrator and to be run by a political appointee (Dans, 2024, p. 421) and Office of the General Council and that EJ work should continue but be "based on neutral constitutional principles" (Dans, 2024, p. 441)

[T]here is an opportunity to redefine EJ as a tool for the agency to prioritize environmental protection efforts and assistance to communities in proximity to pollution or with the greatest need for additional protection. Allocations of agency resources increased EPA enforcement and/or agency distribution of grants should be based on neutral constitutional principles" (Dans, 2024, p. 441)

This could be consistent with several explanations: former (and possible future) Trump Administration officials could simply be aiming to assert control over the office in order to reduce its influence over policymaking, or they may have a different definition of EJ and want to make sure that the office is advancing their preferred issue frame. Investigating how Trump administration officials responded to various EJ issue frames advanced in public comments is one way to better understand how influential these frames are (if at all) and how to interpret variation in their use by federal agencies.

## 4 Methods

### 4.1 Hand-codeing

To investigate the relationship between issue framing and substantive lobbying success, I use hand-coded comments on a random sample of 200 [182/200 complete as of Sept 1, 2024] rulemaking dockets. For each rule in the sample, almost all comments are hand-coded for their level of lobbying success. Hand-coding includes recording the type of organization, the lobbying coalition to which each comment belongs, the type of coalition (primarily public or private interests), their policy demands, and the extent to which the change between the draft and final rule aligned with their demands. This level of alignment between policy demands and policy outcomes is my measure of lobbying success. It does not identify a causal relationship (true policy influence), but it is the standard approach for assessing lobbying success with these kinds of observational data (see Yackee and Yackee, 2006). For a more detailed description of the coding process, the codebook is available in Appendix Section C.[3] The hand-coding process included identifying the organization responsible for each comment submitted by an organization (e.g., a business, nonprofit, or government).

This sample of rules includes 60 agencies, including all 52 agencies that have published at least one rule addressing environmental justice and eight agencies that have received comments requesting them to address

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[3]I developed software and methods to select comments that were most likely submitted by organizations rather than by individuals. For example, I include all comments submitted as file attachments or emails, but only some comments typed in a text box. Sophisticated lobbying organizations almost always submit comments as file attachments. I include comments typed in a text box if they share text with other comments, indicating they are part of a pressure campaign. This includes nearly all comments on most rules. I exclude entirely unique textbox contents and comments shorter than ten words. Most textbox comments and nearly all extremely short comments are trivial (e.g., "This sucks"). While form letters are often short, they are very unlikely to be less than ten words. For comments sharing text, I code one sample document for all versions of the form letter.

environmental justice but have never done so. The hand-coded sample of comments on these rules includes 10,894 hand-coded documents representing over 41 million comments (including both mass comments and the 10,894 sophisticated comments they support), including 179 comments from Native American Tribes and 78 from frontline EJ groups.

### 4.1.1   Substantive Policy Change and Lobbying Success

My approach to measuring lobbying success starts with policy demands raised in comments. The dimensions of conflict on which I judge lobbying success are those issues identified by commenters. Unlike other studies, the issues I use to assess lobbying success do not come from first reading the policy or of any a priori concept of what each policy fight is about. Instead, I read the change between draft and final rule with an eye for alignment with commenters' requests (including requests that specific parts of the draft policy do not change.)

Other approaches to identifying the commenter's relationship with policy changes have different strengths and weaknesses. For example, one could measure success by the number of times a comment is mentioned in the agency's response to comments. However, this measure may be affected by strategic responsiveness by agencies choosing to discuss some issues more than others. It also counts explicit rejections toward the measure of responsiveness (as I show in Section 5.2, explicit rejections are common). One could also measure success by focusing on a priori potential aspects of the policy. Balla et al. (2020) count five factors: (1) the number of regulated entities, (2) the number of activities or substances being regulated, (3) the level of pollution standards, (4) the compliance and effective deadlines of the regulation, and (5) the monitoring and reporting requirements. Each takes one value (increasing or decreasing), and each is weighted equally in their analysis. In contrast, by starting with comments, my method relies on commenters to define the dimensions of conflict and highlight the issues they care most about. In this sense, because I am interested in how explicit issue framing affects lobbying success, my approach focuses on "the first face of power"—issues that are already on the agenda of the broader policy system (Bachrach and Baratz, 1963).

### 4.1.2   Summary statistics

Table 2 shows relative rates of lobbying success for different types of organizations. "Overall Success Rate" shows the share of cases that changed between draft and final as each type of commenter requested. "EJ Success Rate" shows the share of cases that changed as the commenter requested when the comment's demands were coded as related to environmental justice. Some organization types — including frontline EJ community groups, universities, religious groups, professional associations, environmental groups, and pressure groups — are subsets of the broad "NGO" category. Trade associations, while technically nonprofit, are not included in the NGO category.

**Table 2:** Hand-coded Lobbying Success by Type of Organization, 2005-2020

| Organization Type | N | Overall Success Rate | EJ Success Rate |
|---|---|---|---|
| Business (Overall) | 1911 | 13% | - |
| Business, Finance | 6 | 33% | - |
| Government, City | 5 | 40% | - |
| Government, State | 294 | 50% | - |
| Government, Tribe | 179 | 9% | 0% |
| NGO (Overall) | 6096 | 27% | 24% |
| NGO, Credit Union | 100 | 49% | - |
| NGO, Environmental Group | 130 | 18% | 14% |
| NGO, Frontline EJ | 78 | 4% | 0% |
| NGO, Pressure Group | 182 | 15% | - |
| NGO, Professional Assn. | 179 | 33% | - |
| NGO, Religious | 220 | 24% | - |
| NGO, Union | 88 | 27% | - |
| NGO, University | 140 | 10% | - |
| Trade Association | 894 | 45% | - |

Only law firms were more likely to get their substantive policy demands met when their comments raised EJ concerns. Tribes and Frontline EJ community groups—already the types of organizations least likely to have their substantive demands met (9% and 4%, respectively)—saw none of their substantive demands related to EJ met. NGOs, overall, and environmental groups (a subset of NGOs) were slightly less likely to see their policy demands met when these demands were explicitly linked to EJ. The most successful types of organizations overall—Trade Associations, States, Cities, and Banks—did not use EJ language in the hand-coded sample. Because EJ demands often oppose the status quo, this aligns with research shows that advocating for the status quo is one of the strongest predictors of lobbying success (Baumgartner, 2009). This should not be taken as evidence that tribes and frontline groups are never influential. Rare events—like comments raising EJ concerns on rules that did not address EJ—are not captured by this small random sample of rules.

Table 2 raises an additional question: are agencies less responsive to tribes and frontline EJ groups *because* they are marginalized in the policy process *or* because their demands are more difficult to accommodate? For example, is a mainstream environmental group asking for more safety regulations related to Uranium mining

more likely to be successful than a Native Tribe making the same request? Or are the observed differential lobbying success rates a result of these groups asking for different things? For example, the mainstream environmental group is asking for more safety regulations, but the Tribe is asking for regulatory authority over mining affecting tribal lands to be returned to Tribal governments (a request that an agency of a settler government may be perceived as less legitimate and thus be less likely to grant).

## 4.2 Priors

While my coding of dimensions of environmental justice is largely inductive, I started with some expectations of dimensions of environmental justice based on prior work.

Most prominent is the distinction between distributive and procedural justice. Procedural justice is discussed both in terms of ex-ante inclusion in policy processes and ex-post matters of equity in implementation and enforcement (Boone, 2008). For example, Konisky and Reenock (2017) find that regulatory enforcement is correlated with political mobilization around EJ issues.

Another dimension of variation is racialization. Modern environmental justice advocacy has roots in the older organizing frame of environmental racism. While the movement has broadened, racial inequality still features prominently in activism and scholarship. Policies' exclusion of race is a frequent target of activist pressure. Abel et al. (2015) find that poorer and less White states have more developed EJ policies.

Additionally, distributive justice claims operate at different geographic scales. A major difference between national advocacy groups and more traditional EJ groups was the scale of impacts they addressed. Traditional groups commented on global or national averages of harms and benefits that were presumed to benefit marginalized communities most harmed by pollution. In contrast, local groups tended to focus on more targeted policies (e.g., state implementation plans or air quality attainment zones). Even when commenting on national policies, they cited specific impacts in their area. This is especially true for tribes and other Native groups.

## 5 Findings

### 5.1 Policymakers Engaging with Environmental Justice is correlated with Substantive Policy Success

Table 3 and Figure 3 show the results of a difference-in-difference regression predicting hand-coded lobbying success *within* organizations that lobbied on more than one rule. *Pressure campaign* indicates whether the organization mobilized a public pressure campaign. The coefficient is negative in this model because pressure campaigns are associated with highly salient rules where agencies are, on average, less likely to make changes (Judge-Lord, 2021). *Supports Rule* indicates whether the commenter supports the direction the agency is going.

**Table 3**

Within-organization (DiD) OLS Model Predicting Hand-Coded Lobbying Success

|  | (1) |
| --- | --- |
| Pressure Campaign | −1.062*** |
|  | (0.166) |
| Supports Rule | 0.895*** |
|  | (0.147) |
| Num.Obs. | 3878 |
| AIC | 14 478.0 |
| BIC | 33 680.6 |
| Std.Errors | by: Organization |
| FE: Organization | X |
| FE: agency | X |
| FE: president | X |
| Dependent Variable | Lobbying Success |

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

In this case, the organization's policy demands are pushing the agency to go further or posing "friendly" amendments. This is highly associated with lobbying success (p < .001). *Agency Adopted EJ* Frame indicates whether the agency changed how it addressed EJ after receiving comments raising EJ concerns. This coefficient alone simply suggests that organizations are, on average, more successful when the agency makes changes (p < .001)—it is not specific to the organization's demands. *Business* is whether the commenter is a business. *Business x Agency Adopted EJ Frame* is the coefficient on the interaction term. Businesses may fare slightly worse when agencies change how they address environmental justice compared to non-businesses (p < .1).

Because models with interaction terms are difficult to interpret, Figure 3 presents predicted lobbying success for the most common business group, The American Petroleum Institute, and the most common non-business group, The Sierra Club, in these data under two conditions: when the agency adopts new EJ language after commenters raise EJ concerns and when EJ language is unchanged in the final rule. There is a weak suggestive relationship between the agency adopting new EJ language and the Sierra Club having more lobbying success.

**Figure 3**
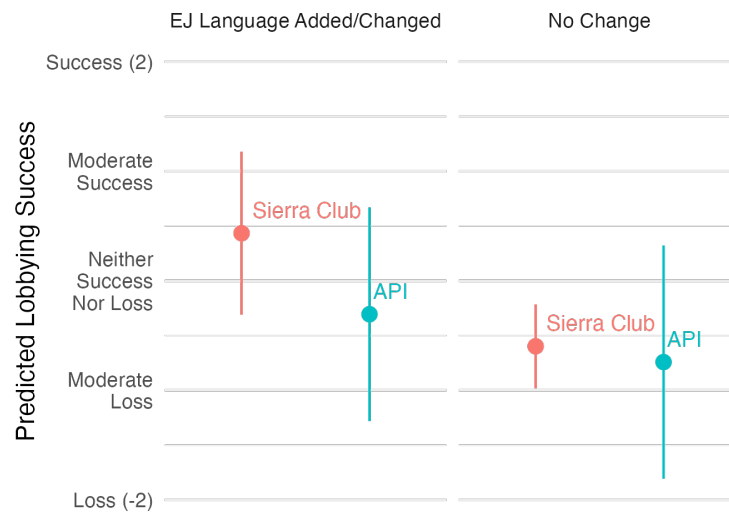
## 5.2    Emerging Dimensions of Environmental Justice Frame

In this section, I inductively identify salient dimensions of environmental justice raised in public comments.

> **ℹ Note**
>
> I have not finished coding these documents, so this qualitative section is very sparse and preliminary.

### 5.2.1    Spatial

Many environmental justice claims have to do with the unequal spatial distribution of environmental harms. Commenters assert an extremely wide variety of spatially disparate impacts as matters of environmental justice.

**5.2.1.1    Unequal spatial distribution of impacts**    One of the major evolutions from its origins in environmental racism is a great expansion of the groups claiming to be disproportionately affected. It no longer needs to assert marginalization or historic oppression. Commenters assert injustices when one county is impacted more than another if urban areas are impacted more than rural areas, or vice versa.

For example, a rural county in Oregon claimed that logging restrictions due to endangered species conservation increased the risk of wildfires, which disproportionately impact rural communities:

> Smoke from such wildfires substantially impacts public health. These serious health impacts are an environmental justice issue that many rural counties throughout Oregon face because of the federal government's failure, or inability, to responsibly manage forests due, in large part, to unnecessary and/or unwarranted restrictions that all center around the spotted owl… (Douglas County, 2008)

**5.2.1.2    Hotspots**    One class of spacial problem is when standards regulate averages across a geography or allow averaging or trading across pollution sources. In these cases, certain areas can become "hot spots," where the standards are exceeded but averaged or offset with other places that fall below the standard to achieve legal compliance.

For example, commenters often raise environmental justice concerns when to pollution sources that affect them are averaged or purchase offsets from more distant sources, meaning that the closer source will pollute more than it would have if each source was required to meet the standard alone.

**5.2.1.3    Unequal baselines**    Some commenters take inequalities in exposure to environmental harms to argue that any average reduction in pollution that affects large areas will disproportionately benefit EJ communities and thus count as advancing environmental justice. This argument is frequently made by mainstream national advocacy groups to advance policies based on their general impacts rather than paying specific attention to localized impacts.

### 5.2.2 Identities

In addition to geographic-based inequality, commenters raised many inequalities linked to identities, including race, gender, and age. One of the most common identity groups, however, was sector of employment. Comments citing occupations with high exposure to environmental harms often ended up in my sample because they uploaded The President's Cancer Panel report as an attachment. This report links sectors of employment to exposure to carcinogens and defines it as an environmental justice issue:

> People from disadvantaged populations are more likely to be employed in occupations with higher levels of exposure (e.g., mining, construction, manufacturing, agriculture, certain service sector occupations) and to live in more highly contaminated communities. The reality of this unequal burden is not just a health issue, but an issue of environmental justice. While all Americans now carry many foreign chemicals in their bodies, women often have higher levels of many toxic and hormone-disrupting substances than do men…Children of all ages are considerably more vulnerable than adults… (The President's Cancer Panel)

This report was cited as a reason to limit workplace exposure in a wide range of policy areas agencies, including Centers for Medicare&Medicaid Services policy on electronic health records WorkSafe, 2012 and changes to Livestock and Poultry Practices required to be certified Organic by the Agricultural Marketing Service (Frank Kleinke, 2018).

#### 5.2.2.1 Gender and Age

#### 5.2.2.2 Language and culture
Language and culture overlap with specific geographies, especially with Native lands. Native commenters frequently assert harm to certain locations as harm to their culture.

### 5.2.3 Cumulative Impacts

While typically focused on multiple geographically proximate impacts, cumulative impacts referrers to many things. A classic example is how permitting decisions for a facility should account for nearby facilities that impact the same area. However, a call to address cumulative impacts may also include background sources of pollution (e.g., naturally occurring or historic persisting). For example, it can refer to adding up exposure at home and at work.

### 5.2.4 Procedural injustice

In the hand-coded sample, commenters raised procedural justice issues on policies about procedures, especially reforms to the National Environmental Policy Act, which proscribes how other agencies conduct environmental reviews.

Overlapping with the focus on NEPA, many of the procedural justice claims came from tribes asserting consultation rights. CEQ-2019-0003-84724 CEQ-2019-0003-171251 CEQ-2019-0003-169898

### 5.2.5 Enforcement

While procedural and enforcement injustices get significant attention in academic texts, advocates in the rulemaking process rarely raise concerns about enforcement. This is likely due to the forum, which is soliciting comments on draft policy, leading people to focus on substance.

## 5.3 Environmental Justice Frames As Recognized by Policymakers

In this section, I disaggregate the frames used or recognized by agency officials as they respond to public comments and revise the final rule documents.

### 5.3.1 Comments missed or ignored

As suggested by the response in Figure 2, most agencies, most of the time failed to respond to commenters raising environmental justice concerns. Sometimes, this was because the EJ concerns cited were only loosely connected to the rule—for example, the above-mentioned report on unequal exposure to cancer risk is only loosely related to organic farming practices and medical records systems.

However, it is not uncommon for agencies to completely miss substantive comments raising clear EJ concerns; for example, during the Obama administration, the Nuclear Regulatory Commission published new Emergency Preparedness Regulations NRC-2008-0122. In the final rule, they claim to have received no input on environmental justice.

> The NRC requested public comments on any environmental justice considerations that may be related to this rule and no comments were received.

This was incorrect. A comment from Hudson River Sloop Clearwater, Inc. raised serious EJ concerns that went unaddressed in the rule:

> The rules and guidance are based on a fantasy world in which the terrain around nuclear power stations is perfectly flat, radiation plumes do not move up and down, the wind blows at the same speed in a constant direction throughout an accident, and most people follow the instructions they are given about the need to evacuate.

> **Need for Site-Specific Analysis of Transport-Dependent Populations:** The present guidance suggests that because 50% of residents would offer rides to those in need, approximately 50% of the transit-dependent population in the EPZ would rideshare. Criteria for Development of ETE

Studies (April 23, 2009) at 13. This assumption fails to account for the likely separation of transit-dependent environmental justice populations from more affluent populations. Furthermore, it takes no account of attitudes towards race and the potential reluctance of whites to offer rides to African- Americans. Instead of presuming that 50% of the transit-dependent population will rideshare, the presumption should be that only a small percentage will rideshare unless the licensee can show that there are no geographical concentrations of transit-dependent populations and that there is no racial or sociological bias with regard to ridesharing.

…people would be foolish to follow the directions of first responders if they are based on totally unrealistic modeling. Indeed, it is doubtful whether people would follow instructions even if they were based on the best predictions possible. The experiences during Hurricane Katrina also underline that it is even more doubtful whether the response planned for environmental justice communities would actually materialize.

### 5.3.2 Ways that Agencies Dismissing EJ Claims

**5.3.2.1 Empty lipservice** As one commenter noted on the Trump Administration's NEPA reforms:

We find that many pages of most NEPA disclosure documents are devoted to boilerplate language regarding historic preservation; environmental justice,… and other issues. (Oregon Wild, 2020)

Boilerplate language asserting "no adverse effects on low-income or minority populations" was common in regulatory texts. However the frame is understood by the bureaucrats using this language, it is clear that they do not understand environmental justice analysis as part of their job.

**5.3.2.2 Minimizing policy impacts relative to trends** When the Trump Environmental Protection Agency repealed the Obama-era Clean Power Plan, the EPA asserted that any climate-related benefits of the policy were insignificant because the trend was toward decreasing pollution intensity. Because the trend was in the right direction, the future was to be better than the past, and thus, comparative analysis of alternative futures with and without the policy is not needed.

EPA believes that the power sector is already on the path to achieving the $CO_2$ reductions required by the CPP. Therefore, the EPA does not believe it would have any significant impact on EJ-affected communities. (EPA-HQ-OAR-2017-0355, 2019)

The Biden EPA used a similar logic, emphasizing that while the relative impact of the policy would be to increase pollution, broader downward trends meant that exposure would still be lower in the future (though not as low as it would be under the prior policy regime):

…there is potential for some geographic areas and demographic groups to experience small in-creases in ozone concentrations relative to the baseline levels, which are projected to be substantially lower than today's levels. (EPA-HQ-OAR-2023-0072-8244, 2024)

**5.3.2.3 Balancing** For example, the Trump administration's repeal of the Clean Power Plan noted that the policy would lead to increased pollution in some areas but argued that they were offset by improvements in other areas:

> While the EPA expects areas in the southeastern US to experience a modest increase in fine particle levels, areas including the Midwest will experience reduced levels of PM, yielding significant benefits in the form of fewer premature deaths and illnesses. On balance, the positive benefits of this action significantly outweigh the estimated disbenefits.

This kind of large-scale averaging that allows local pollution hot spots has been one of the main complaints of environmental justice advocates from the beginning of the movement.

**5.3.2.4 Citing limits on harms** Another genre of response aims to address concerns by emphasizing that the policy limits the level of inequality it might permit. For example, the Biden EPA addressed complaints that emissions trading could lead to pollution hot spots but asserted that the policy included backstops intended to limit inequalities:

> The EPA is cognizant of these concerns and believes that emission trading and averaging are not necessarily incompatible with environmental justice. The EPA is including limitations on the use of compliance flexibilities in state plans that should help address these EJ concerns.

When weakening or repealing regulations, agencies often cite other policies as backstops that minimize the harms of removing federal regulation. For example, the Bush EPA claimed that deregulating sources of hazardous air pollution would have no effect on nearby minority and low-income communities because polluters were still required to have a plan, just not required to follow it.

> "The only difference from current regulation is that the source is not required to follow the plan."

### 5.3.3 "Job-killing" regulation as an environmental justice issue

When the Trump Administration repealed the Clean Power Plan (CPP) regulations on power plants (Electric Generating Units or EGUs), the Trump EPA advanced an argument that, despite harming air quality, the repeal served environmental justice because it preserved jobs and lowered utility bills in low-income communities

near power plants. This section of the proposed rule on environmental justice then went on to link job loss to health risks and substance abuse:

> Low-income and minority communities located in proximity to EGUs may have experienced an improvement in air quality as a result of the emissions reductions. However, the EPA did not address the potential distribution of compliance costs associated with the CPP…Low-income households typically spend a greater share of their household income on energy, and to the extent that this action reduces energy costs, those low-income households will experience lower energy bills…While employment effects are not experienced uniformly across the population and may be offset by new opportunities in different sectors, localized impacts could have adversely affected individuals and their communities… In addition, past research has suggested that involuntary job loss may increase risks to health, substance abuse, and even mortality. (EPA-HQ-OAR-2017-0355, 2017)

## 5.4 Environmental Justice Frames Associated with Substantive Policy Change

In this section, I disaggregate the results from section Section 5.1 by the frames identified in section Section 5.2 to investigate which are most associated with substantive policy change.

> ⚠ Warning
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> IN PROGRESS

## 5.5 Substantive vs. Identity-based Discrimination

By disaggregating the diverse meanings behind demands for environmental justice, I now turn to whether relatively national advocacy groups are advancing similar demands but with different levels of success or if disparities in success can be explained by differences in demands.

> ⚠ Warning
>
> IN PROGRESS

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# Appendix

## A  Additional Descriptives

Figure A1 shows the draft and final rule pairs used in each measure, with Measure 1 leveraging variation in final rules where the draft contained no mention of EJ and Measure 2 leveraging variation in the text addressing EJ when the draft did address EJ. Circles indicate that "environmental justice" appeared in the text. Triangles indicate that it did not. Solid lines indicate a change in rule text; dashed lines indicate no change (one and zero, respectively, for the dependent variable). For visual clarity, draft and final rules are grouped by year—each point may represent hundreds of draft or final rules published that year. In the models, the president variable corresponds to the date the final rule is published since this is the administration in power when the decision to change or not change the rule text is finalized.

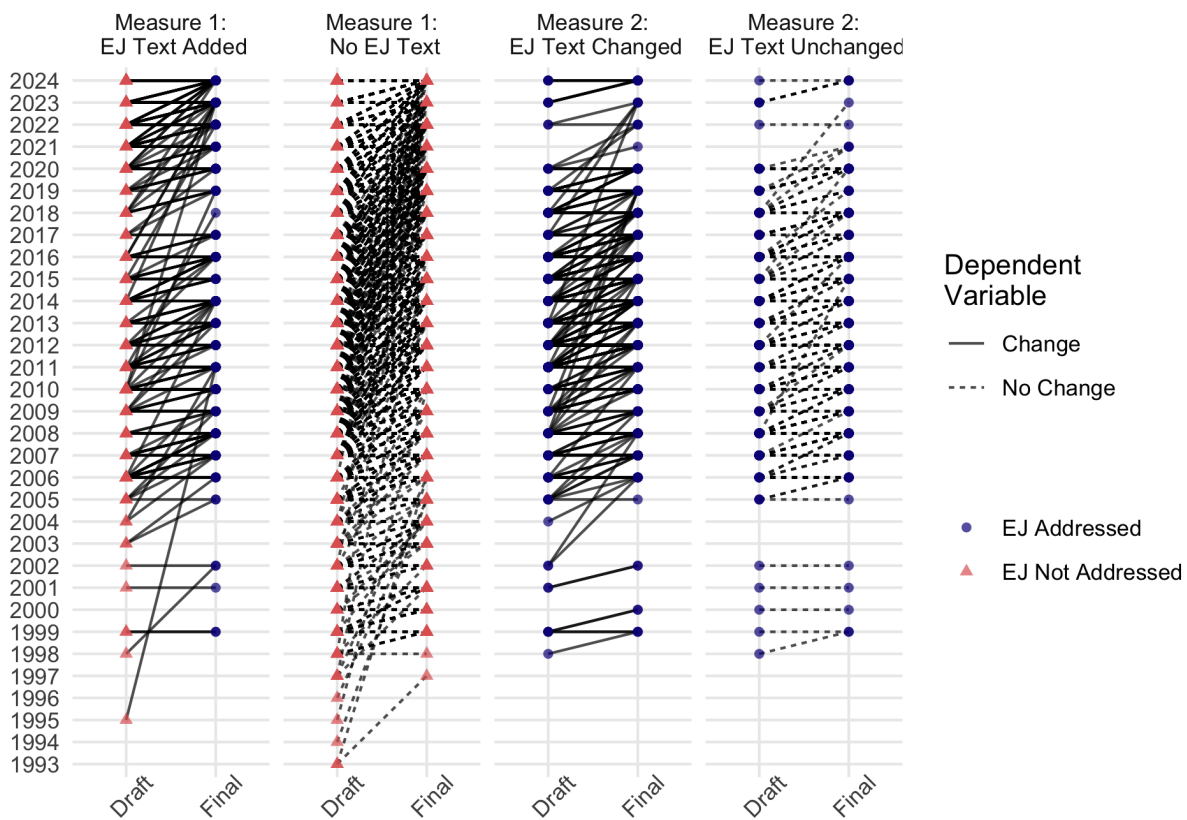**Figure A1:** Draft and Final Rule Pairs

**Table A1:** Rates of Mentioning "Environmental Justice" in Final Rules

| President | Rules | Mention EJ |
|---|---|---|
| Clinton | 1477 | 14.58% |
| Biden | 6389 | 11.56% |
| Obama | 12023 | 9.65% |
| G. W. Bush | 10310 | 7.07% |
| Trump | 5529 | 4.84% |

## A.1   Rates of Addressing EJ by President and Agency

Table A1 shows the total number of final rules and the percent that address EJ by President

Table A2 shows the total number of final rules and the percent that addresses EJ for the twenty agencies that most frequently mention EJ in final rules.

Table A3 shows the total number of final rules and the percent that addresses EJ for the twenty agencies that most frequently mention EJ in final rules.

**Table A2**

| Agency | Rules | Mention EJ |
|---|---|---|
| FTA | 364 | 70.00% |
| FHWA | 856 | 62.79% |
| CEQ | 12 | 50.00% |
| FEMA | 88 | 42.86% |
| EPA | 3309 | 41.27% |
| FRA | 1058 | 36.00% |
| BOEM | 41 | 31.58% |
| PHMSA | 1468 | 30.77% |
| FMCSA | 669 | 25.76% |
| BSEE | 37 | 17.65% |
| BLM | 48 | 15.79% |
| COE | 104 | 14.63% |
| FS | 72 | 13.33% |
| RBS | 96 | 12.00% |
| USDA | 34 | 11.11% |
| NHTSA | 1954 | 10.78% |
| FSA | 45 | 8.33% |
| DOT | 228 | 7.89% |
| NTSB | 29 | 7.69% |
| NRC | 660 | 5.87% |
| RUS | 110 | 5.13% |
| CCC | 73 | 4.55% |
| RHS | 125 | 4.08% |
| GSA | 192 | 2.67% |
| DOE | 143 | 2.27% |
| BIA | 73 | 2.22% |
| HUD | 405 | 1.85% |
| HHS | 148 | 1.77% |
| NOAA | 3140 | 1.66% |
| TREAS | 98 | 1.56% |
| DOD | 483 | 1.47% |
| EBSA | 123 | 1.28% |
| FWS | 1374 | 0.67% |
| EERE | 414 | 0.56% |
| FDA | 615 | 0.54% |
| CMS | 764 | 0.19% |
| IRS | 964 | 0.13% |
| ACF | 58 | 0.00% |
| AMS | 914 | 0.00% |
| CPSC | 215 | 0.00% |
| FAA | 6127 | 0.00% |
| FSIS | 120 | 0.00% |
| HHSIG | 38 | 0.00% |
| MARAD | 1327 | 0.00% |
| NRCS | 32 | 0.00% |
| OCC | 246 | 0.00% |
| OSM | 197 | 0.00% |
| RITA | 35 | 0.00% |
| USCG | 4738 | 0.00% |

**Table A3:** Rates of Mentioning "Environmental Justice" in Final Rules

| Agency | Biden | Trump | Obama | G. W. Bush | Clinton |
|---|---|---|---|---|---|
| CEQ | 100.00% | 50.00% | 0.00% | NA | NA |
| FHWA | 100.00% | 30.00% | 66.67% | 0.00% | 0.00% |
| FRA | 100.00% | 35.00% | 5.56% | 0.00% | NA |
| FTA | 100.00% | 100.00% | 58.33% | 0.00% | NA |
| PHMSA | 100.00% | 0.00% | 0.00% | 0.00% | NA |
| FEMA | 80.00% | 28.57% | 44.44% | 20.00% | NA |
| BOEM | 66.67% | 0.00% | 16.67% | NA | NA |
| EPA | 51.27% | 37.73% | 44.10% | 24.36% | 22.73% |
| FSA | NA | 50.00% | 0.00% | 0.00% | NA |
| USDA | 20.00% | 0.00% | 0.00% | 50.00% | NA |
| BLM | 44.44% | 0.00% | 6.67% | 20.00% | NA |
| FS | 40.00% | 12.50% | 20.00% | 0.00% | NA |
| COE | 38.46% | 31.25% | 5.13% | 0.00% | NA |
| FMCSA | 5.56% | 30.00% | 37.04% | NA | 0.00% |
| NHTSA | 31.58% | 5.00% | 6.78% | 0.00% | 0.00% |
| BSEE | 28.57% | 0.00% | 14.29% | NA | NA |
| NTSB | 20.00% | NA | 0.00% | 0.00% | NA |
| RBS | 0.00% | 0.00% | 20.00% | 0.00% | NA |
| NRC | 1.94% | 0.00% | 4.86% | 11.70% | 18.18% |
| DOT | 9.09% | 15.38% | 0.00% | 0.00% | NA |
| CCC | NA | NA | 12.50% | 0.00% | NA |
| DOE | 10.53% | 0.00% | 0.00% | 0.00% | NA |
| RHS | 0.00% | 0.00% | 10.00% | 0.00% | NA |
| GSA | 8.70% | 0.00% | 0.00% | 0.00% | NA |
| RUS | NA | 0.00% | 7.69% | 0.00% | NA |
| TREAS | 6.67% | 0.00% | 0.00% | 0.00% | NA |
| BIA | 0.00% | 0.00% | 5.88% | 0.00% | NA |
| HUD | 5.71% | 0.00% | 2.44% | 0.00% | NA |
| EBSA | 4.35% | 0.00% | 0.00% | 0.00% | NA |
| HHS | 0.00% | 0.00% | 4.08% | 0.00% | NA |
| FDA | 0.00% | 2.04% | 0.00% | 0.00% | 3.85% |
| NOAA | 3.46% | 0.62% | 1.99% | 0.52% | NA |
| DOD | 0.00% | 0.00% | 3.03% | 0.00% | NA |
| FWS | 0.34% | 0.51% | 0.78% | 1.32% | NA |
| IRS | 1.06% | 0.00% | 0.00% | 0.00% | NA |
| EERE | 1.01% | 0.00% | 0.46% | 0.00% | NA |
| CMS | 0.00% | 0.00% | 0.38% | 0.00% | NA |
| ACF | 0.00% | 0.00% | 0.00% | 0.00% | NA |
| AMS | 0.00% | 0.00% | 0.00% | 0.00% | NA |
| CPSC | 0.00% | 0.00% | 0.00% | 0.00% | NA |
| FAA | 0.00% | 0.00% | 0.00% | 0.00% | NA |
| FSIS | 0.00% | 0.00% | 0.00% | 0.00% | NA |
| HHSIG | 0.00% | 0.00% | 0.00% | 0.00% | NA |
| MARAD | 0.00% | NA | 0.00% | NA | NA |
| NRCS | NA | NA | 0.00% | NA | NA |
| OCC | 0.00% | 0.00% | 0.00% | 0.00% | NA |
| OSM | 0.00% | 0.00% | 0.00% | 0.00% | NA |
| RITA | NA | 0.00% | NA | NA | NA |
| USCG | 0.00% | 0.00% | 0.00% | 0.00% | NA |

## A.2 Rates of Change With and Without Comments Raising Environmental Justice

**Figure A2:** Proposed Rules with No EJ Text
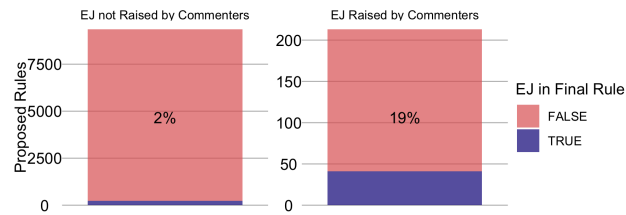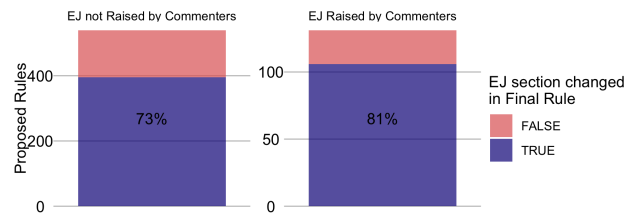


**Figure A3:** Proposed Rules with EJ Tex



Rates of Change Between Draft and Final Rule

## B   Additional Results

Figure 2 showed surprisingly similar rates of responsiveness to comments raising (i.e., the difference between adding EJ text to final rules when comments raised it and minus baseline rates of adding EJ text.) Figure A4 and Figure A5 show these same results but include point estimates for the baseline condition (adding or changing EJ language when comments did not raise EJ) and the treatment condition (adding or changing EJ language when comments did raise EJ). They show low baseline rates of adding EJ language when it was not present in the proposed rule but much higher rates of changing EJ language when it was present in the proposed rule. In all cases, comments raising EJ concerns are associated with a higher rate of addition or change, respectively, across administrations.

**Figure A4:** Responsiveness to Pressure Address Environmental Justice where the Proposed Rule Did Not Address Environmental Justice
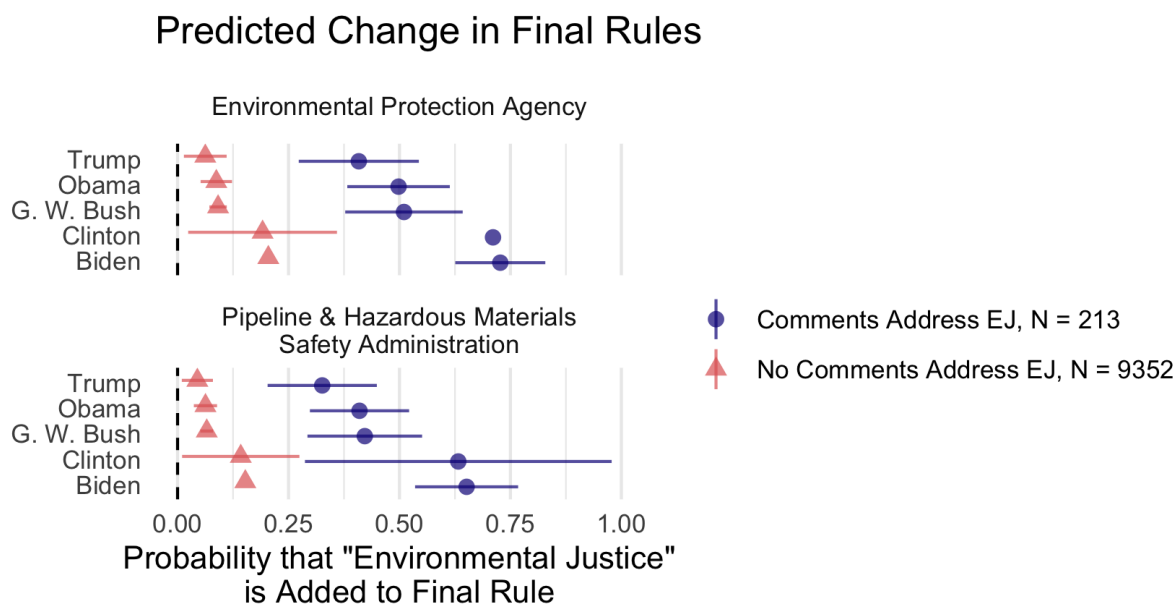


## C   Codebook

This codebook describes the coding of public comments on proposed agency rules.

### C.0.1   Coding Comments

A position will eventually be identified for all comments, but the first step is to identify the positions of comments by organizations and elected officials (other comments are generally identified automatically from textual similarity). This scheme (especially the org_type, ask, and success variables) builds on work by Susan Webb Yackee (e.g., Yackee, 2006; Yackee and Yackee, 2006).

DATE = the date on the comment. If the comment is not dated, this defaults to the date that the agency received the comment.

Initially, we code position on the main dimension of conflict (it may be a challenging interpretive task to identify the main dimension of conflict raised by a comment).

position =

- "1" Opposed to the rule change for moving in the wrong direction (e.g., "We need stronger, not weaker regulations" or "These regulations are already bad for our business, we should not make them even more strict")

**Figure A5:** Responsiveness to Pressure Address Environmental Justice where the Proposed Rule Did Address Environmental Justice
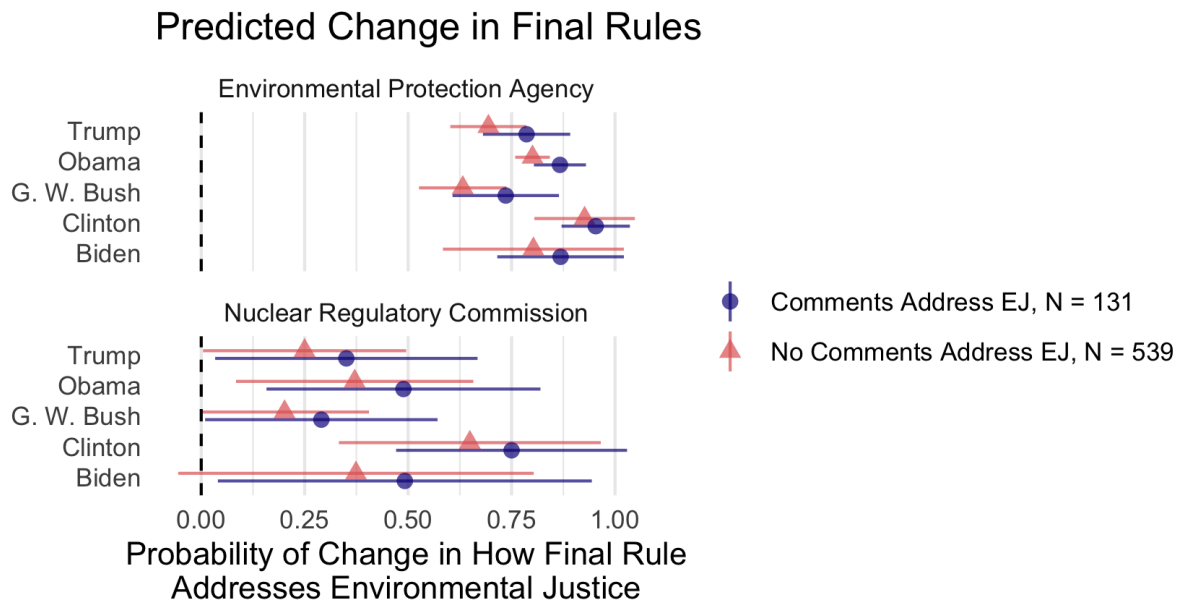


- "2" Opposed to the change, prefers no change, though they might be ok with some change
- "3" Supports the rule change, but asking for less (e.g., "we applaud EPA's efforts to regulate …, but would prefer less severe limits" or "The Guild recognizes the need to have uniform regulations which the proposed rules address. Still, the Guild takes issue with some of the proposed changes")
- "4" Supports the rule change as is
- "5" Supports the rule change but asking for more
- "6" Opposed to the rule change for not going far enough (e.g. " While the proposed rule may improve current protections to some degree, it is utterly inadequate…If the agency fails to revise the rule to incorporate such measures, then they should withdraw the proposed rule completely" https://www.regulations.gov/comment/NOAA-NMFS-2020-0031-0668)
- "0". Only if there is really no position of any kind on the policy

Note that a commenter can support a rule that is moving in a deregulatory direction. This means that they oppose regulation and thus support the rule (because the rule is rolling back regulation). What matters here is their position on the change from the status quo (current policy) to the proposed rule, not on regulation in general. These positions correspond to a commenter's ideal policy (their "ideal point" in the policy space). If a commenter's ideal policy is at position 1 in the figure below, the proposed rule change is moving policy in the opposite direction they want it to move, hence their position is "opposed to the rule change for moving in the wrong direction." Similarly, if the current policy (the status quo) is a commenter's ideal policy, their ideal point is at or near the current policy ($x_1$), position 2, and they are opposed to the proposed rule change.

If the commenter's ideal policy is at positions 3, 4, or 5, these ideal policies are closer to the new policy, $X_2$ than the current policy $X_1$, and thus they are likely to support the rule change. If the commenter's ideal policy is at position 6, the change from $X_1$ to $X_2$ is insufficient for them to support it (even though it is technically moving in the direction they would like). This is rare, but commenters do occasionally reject proposed rules for doing too little. Their hope is that by rejecting this proposed policy (even though it moves policy in their preferred direction), they might get a better policy later.

```
position_certainty =
```
"1" = fairly certain (may also be left blank), "2" = unsure, "3" = totally unclear

```
coalition_comment =
```
Is this commentator lobbying alongside other commenters in a fashion that suggests they are a coordinated coalition? If so, put the name of one of the other main organizations in the coalition here and use this for all comments with compatible asks. Coalitions may be implicit (compatible asks, even if they don't mention the other organizations) or explicit (e.g. "In terms of specific reservations about the proposed changes, we associate ourselves with the letter from ACLU"). There may often be only one coalition commenting on a rule (especially for rules with few comments). It is harder to identify the sides of a debate where only one side shows up, but we must be careful not to artificially break up essentially aligned interests just to have a conflict between commenters. The conflict that matters is generally on the main dimension(s) of conflict at issue in the policy. If everyone is 3s and 4s (or 1s and 2s) they will more often all be one big coalition pushing generally in the same direction with compatible asks than several smaller ones pushing in different incompatible directions. Position and coalition are not synonymous, but they are highly correlated.

```
coalition _type =
```
The key distinction here is typically whether the lead organizations will profit from the coalition's advocacy (even if some of the organizations in the coalition are nonprofits)

- "public" if this coalition is primarily lobbying on behalf of some idea of the public interest (two organizations lobbying on the same rule may have opposing ideas of the public interest, but oftentimes public interests conflict with private interests)

- "private" if this coalition is mainly on behalf of private interests (even if not their own or if using language evoking the public interest, as most lobbying does)

```
comment_type =
```

- "org" any kind of organization making substantive suggestions

- "elected" Is this comment from an individual elected official (e.g., U.S. House or Senate). Add a specific type of elected official after a semicolon "elected; house, elected; senate, elected; governor, elected; state senate, county commissioner, etc.

- "individual" an individual who is writing in their personal capacity, not on behalf of an organization or office (even if they use an organization's letterhead), and is not part of an organized petition-like campaign

- "corp campaign" a form letter used by many (often small) businesses (org_name and org_type will still be the organization (e.g. the name of the small business and "corp;small business")

- "mass" a petition-like campaign

    - "mass;grassroots" - individuals who genuinely care

– "mass;astroturf" campaigns are intended to create a deceptive appearance of public support. The group organizing the campaign is only doing so because they are being paid. The individuals mobilized are often either deceived (e.g., intentionally misled about the policy or its likely effects) or financially incentivized to participate. In the extreme, astroturf campaigns may use the names of fake or non-consenting individuals. In contrast, a more grassroots campaign may also require funding, but groups would choose to use resources for such a campaign even without the quid pro quo, and individuals are mobilized based on some pre-existing interest or belief. While grassroots campaigns may involve simplification, spin, and even mild deception, it is not decisive to the campaign. If you find yourself thinking "why are these people supporting this company/industry?" it might be astroturf.

– "mass;corp campaign" - genuine support/opposition from a large number of businesses, often small businesses.

---

**C.0.1.1   If `comment_type` = "org":**   `org_name` = the name of the organization. This column will often be filled in automatically with an algorithm's best guess. Please revise these names to be the clearest, standardized, and unique version of the organization's name.

If more than one organization signed the comment, try to pick the main organizer (e.g., the one whose letterhead is used). If unclear, go with an organization we have seen before (this will increase the chances it is linked to the right set of lobbying coalitions). If still unclear, go with the first signatory. When more than one organization signed the comment, add "; coalition" to the end of whatever `org_type` codes you give it.

`org_type` = the type of organization, "corp"/"corp group"/"gov"/"ngo" etc. (create additional codes as needed). Definitions:

• "corp" = individual business (add subtypes as applicable, corp;small business, corp;coop, corp;law firm, corp;bank; corp;financial firm, corp;consultancy)

• "corp group" = "business interests" (members or representatives of a trade association, corp group;trade association)

• "gov" = government interests ("gov;state" "gov;local" "gov;federal" "gov;tribal" 'gov;regional" or "gov;foreign") within the United States. If states (e.g. Governors or Attorneys Governor), list out all states in org_name.

• "ngo" = non-business and non-government interests.
  Use a semicolon to indicate subtypes, such as:
  "ngo;advocacy"
  "ngo;legal"
  ngo;professional (e.g. an association of doctors or other professionals)
  "ngo;philanthropy"
  "ngo;Foundations"ngo;union"
  "ngo;credit union"
  ngo;pressure group (a group mobilizes pressure campaigns)
  "ngo;membership organization" (an NGOs that has members)
  "ngo;university"
  "ngo;thinktank" (an organization that does policy-oriented research)
  "ngo;church" or "ngo;religious"

– "ngo;ej" Does this organization represent an Environmental Justice/frontline community? I.e. are they based in an affected community?

NOTE: There are many additional sub-types of non-governmental organizations, including advocacy groups, membership groups, professional associations, foundations, and charities. These are not mutually exclusive. Use a semicolon to separate multiple tags. Some 501c3s are industry associations; they should be coded as a "corp group." However, many NGOs that are not clearly a corp group still advocated for private interests. For example, Chambers of Commerce represents business interests generally and thus ends up being a member of many private-interest coalitions, even though they may not explicitly be commenting on behalf of a regulated industry as an industry association would.

- "other" = If the commenter is really in no way in any of the above (e.g. a foreign government)

ask =
The text of the comment (e.g., a sentence) that best captures the overall ask, proceeded by a word or two describing the ask (e.g. "ej analysis; [TEXT]" or "exempt credit unions; [TEXT]" ). Specific guidance for EJ asks: EJ asks may be specific-placed based requests or general asks broadly relevant to EJ ("ej specific;" vs. "ej general;"). Because this is federal policy, general assertions are more common, but EJ claims also often make claims about specific groups deserving protection.
ask1, ask2, ask3 =
The text of the comment's top three (if there are three) specific asks or objections (e.g., the proposed rule text they object to or would like to be changed.) If a comment responds to several issues within a rule, try to select the main ask from each of the top 3 issues, not just the first 3 issues they address. For example, if the organization "opposes" or "supports" several proposed changes, but "strongly opposes" or "strongly supports" other proposed changes, that may indicate which issues they care most about. Ultimately, you must put yourself in the organization's shoes, think about their mission and their members, and decide which of the issues they raise are most important to them. Identify the clearest statements of their top 3 aims and include all surrounding text that is on topic for that ask. As with ask tag each sub-ask with a few words, followed by a semicolon before the text of the ask.

If there is only a general sentiment, ask1 can be the same ask (with ask2 and ask3 left blank, as they are any time there is not more than one detailed request).
success, success1, success2, success3 (corresponding to ask, ask1, ask2, ask3)

- "2" if, overall, the final rule ended up mostly where requested

- "1" if, overall, the rule ended somewhat close to that requested

- "0" if no adverse changes, but also no requests met, or if the request is moot. A request may become moot if superseded by another request. For example, if a group requests that the rule is withdrawn, but if not, changed, then withdrawal makes the requested changes moot. Note: If no changes were requested (they requested the rule be published as is), then no adverse changes is actually a 2)

- "-1" if the rule ended up somewhat different/opposite than requested

- "-2" if the rule ended up significantly different/opposite than requested

Note that "-1" and "-2" can include rules being published without requested changes or withdrawn when the group would prefer the rule not to be withdrawn.

`success_certainty` =
"1" = fairly certain (may also be left blank), "2" = unsure, "3" = totally unclear

IMPORTANT NOTE: Asks and success should focus on the change from the proposed to the final rule. For example, if an commenter likes a rule, but asks that it goes further, and then the rule is rolled back somewhat, this would be an adverse change and thus a -1. If a rule that an organization liked was withdrawn, it would be a -2. If they ask for it to be published as is and it is published as is, success is a 2. If they ask for it to be strengthened and it is published as is that is a 0. If their asks are a mix of "stay the course" and "strengthen" and the rule is published without change, we might code that a 0 or a 1 depending on how important the changes demanded were. If their main emphasis was on keeping policy provisions in the proposed rule, no change is a moderate success.

`response` =
Paste the text of the agency's response to the comment. The `final_url` column contains the link to the final rule (where agencies often respond to some comments) in the federal register.

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**C.0.1.2   If `comment_type` = "elected":**   Note: this is only for individual elected officials. If a governor or attorney general writes on behalf of the state government that is a "gov" type organization.

`org_name` (or `elected_name`, if your sheet has it) is the official's full name. If there is more than one official, record the first one, unless they are from the US House or Senate, in which case, record all names separated by ";"

`org_type` (or `elected_type`, if your sheet has it) is the official's position. For U.S. Senators and Representatives, this should be "Chamber-[STATE ABBREV]" (e.g. "Senate-WI" or "House-NY"). For state representatives, please start with the state to avoid confusion ("Wisconsin Assembly District 4").

Make sure to code `coalition` and `coalition_type`!

The ask and success variables are coded as described for `comment_type` = "org"

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**C.0.1.3   If `comment_type` = "mass":**   Code `org_name` and `org_type` as the organization mobilizing the comment campaign, if known.

Make sure to code `coalition_comment` and `coalition_type`! Every mass comment must be assigned a coalition!

Keep your eye out for "astroturf" campaigns that appear to advocate for public interest but are really mobilized by private interests. Recall the types of mass comment campaigns from the above description of `comment_type`:

- "mass;grassroots" = individuals who genuinely care
- "mass;astroturf" = individuals who were mobilized by a well-resourced group to create an impression of public support/opposition
  And the related `comment_type` if the form letter is signed by businesses rather than individuals:
- "mass;corp campaign" = genuine support/opposition from a large number of businesses, often small businesses.

Leave ask, success, and `response` columns blank.

Check that the `number_of_comments_received` column matches the number of comments/signatures submitted. If it does not, correct it.

If your sheet has a `transparency` column, code whether the campaign was transparent about its "sponsor", "signers", "both", or "neither". If your sheet does not have this column, record transparency comments in the `notes`.

Generally, it is obvious from the letter who they are and how we might verify that. A bunch of names with no contact information is not very transparent, but if they say "these are members of our organization," that should be enough if we needed to verify. Agencies occasionally post one representative comment for a campaign; this should not be held against an organization if they also provided the others, we could get them if needed. If a sponsor gives their phone number but not their organization, that is not enough. If you have to research to find the organization's name, that is not transparent. If they submit under a misleading name, that is also not transparent. I have mostly seen this in corp campaigns, where they try to disguise who paid for the campaign.

If your sheet has a `platform` column, record the tech platform(s) used to generate comments: "VoterVoice" "Care2" "SalesForce" If your sheet does not have this column, record any platform used to generate comments in the `notes`.

If your sheet has a `fraud` column, record any indication of fraud, for example, - a large number of double-counted signatures - clear evidence that signers were tricked, paid, or deceived into commenting - "DMARC validation failed." Otherwise, leave this column blank. If your sheet does not have this column, record evidence of fraud in the `notes`.

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**C.0.1.4 If `comment_type` = "individual":** Only code `position`, `coalition`, `coalition_type`, if it is immediately obvious, otherwise, record comment_type as "individual" and move on. If an individual comment is very technical–perhaps from a professor–do your best to code the coalition and read carefully to see if the person is writing on behalf of a group. "individual" is only for people writing in their personal capacity.

Leave `org_name`, `org_type`, `ask`, and `success` variables blank, unless the individual's organization also submitted comments on behalf of the org, in which case org_name can be helpful for identifying the individual's coalition, but it is not necessary.

**Figure A6:** Instructions for Coding the Position of a Comment Given Current Policy, X1, and proposed policy, X2

Position of Commenter i ($p_i$) on Proposed Policy $x_2$, Given Current Policy $x_1$

$x_1$       $x_2$       $x_3$

Comment asks for policy to move in the opposite direction, $p_1 < x_1$:

**1**

Comment asks for no change from current policy, $p_i = x_1$:

**2**

Comment asks for policy much closer to current policy, $x_1 > p_3 > x_2$:

**2**

Comment asks for policy slightly closer to current policy, $x_1 > p_3 > x_2$:

**3**

Comment asks for the proposed policy as is, $p_i = x_2$:

**4**

Comment asks for more change than the proposed policy, $p_i > x_2$:

**5**

Comment rejects policy as an insufficient change, $p_i > x_3$:

**6**

Oppose
Support