

# Beyond Meeting Climate Goals: The Unpopularity of Masculine-Threatening Climate Policies\*

Joshua A. Schwartz,<sup>†</sup> Christopher W. Blair,<sup>‡</sup> and Sabrina B. Arias<sup>§</sup>

August 30, 2024

## Abstract

Adopting climate mitigation policies is highly politicized in the US context. While prior work has shown a connection between the gender identity of individual members of the public and support for climate policy, to what extent does the gendered nature of the policy itself and the sex of the leader proposing it impact public opinion? We theorize that policies that are perceived as ‘masculine-threatening’ elicit more public opposition than gender-neutral climate policies. We further argue that women leaders face a higher penalty for pursuing climate mitigation, especially when they advocate for climate policies that threaten masculine-coded norms and behaviors. For example, if a woman leader proposes climate mitigation measures that disincentivize eating meat or driving larger, “manly” vehicles, then we expect public approval will be lower than if a man proposed an identical policy. To test our theoretical expectations, we deploy pre-registered survey experiments on representative samples of the US public. While we find that masculine-threatening policies face substantially more opposition, we do not find that women policymakers face a gender penalty for advocating either type of climate policy. These results have significant implications for academic theories about gender and climate policymaking, and suggest that sex alone does not inhibit women policymakers from advancing progressive climate action.

---

\*Names are in reverse alphabetical order; equal authorship is implied. Generous support for this research is provided by the Kleinman Center for Energy Policy at the University of Pennsylvania. We kindly thank Soohyun Cho, Thomas Flaherty, Alexander Gazmararian, Zoe Ge, Jonathan Guy, Zuhad Hai, Alyssa Heinze, Daniela Osorio Michel, Gino Pauselli, Duy Trinh, and Taylor Vincent, as well as participants at the 2023 Princeton Research in Experimental Social Science Workshop and the 2024 APSA Conference for helpful comments and advice. This study was reviewed by the Princeton University Institutional Review Board and granted exempted status (IRB # 16163).

<sup>†</sup>Assistant Professor, Carnegie Mellon Institute for Strategy and Technology, Carnegie Mellon University, [joshschwartz@cmu.edu](mailto:joshschwartz@cmu.edu)

<sup>‡</sup>Assistant Professor, Dept. of Politics, Princeton University, [chris.blair@princeton.edu](mailto:chris.blair@princeton.edu)

<sup>§</sup>Assistant Professor, Dept. of International Relations, Lehigh University [sarias@lehigh.edu](mailto:sarias@lehigh.edu)

## Introduction

“Kamala even wants to pass laws to outlaw red meat to stop climate change... You know what that means? That means no more cows.”<sup>1</sup> — Former President Donald Trump

“Kamala can’t have my guns. She can’t have my gasoline engine. And she sure as hell can’t have my steaks and cheeseburgers.”<sup>2</sup> — Senator Ted Cruz

In the ongoing US presidential campaign, Republicans are attacking Democratic nominee Kamala Harris with critical messages—like the ones above—about her climate policies, highlighting (false) claims that she would ban red meat, plastic straws, and gasoline-powered engines.<sup>3</sup> Such messages are part of a broader effort to frame progressive climate policymaking as a threat to a traditional conceptualization of American masculinity. Republican Senator Josh Hawley of Missouri made this link explicit, asserting that boys are “taught that manhood is inherently dangerous, that it contributes to climate change, that they need to renounce their masculinity.”<sup>4</sup> Fox News host Sean Hannity said on his show that, “As the Democrats push their radical Green New Deal agenda, which will destroy the lifeblood of our economy as we know it, and take away air travel and car meat, and the automobile as we know it.”<sup>5</sup> Implicit in these messages is the assumption that the public finds such attacks compelling and that attacking female policymakers for their “anti-masculine” climate positions is an effective political tactic.

Previous studies have analyzed how the gender identity of the public impacts their views towards climate change and climate policy. For example, work has shown that women are more concerned about climate change than men in countries with high levels of economic

---

<sup>1</sup>CNN, July 25, 2024.

<sup>2</sup>Fox News, July 24, 2024.

<sup>3</sup>Bloomberg, July 28, 2024.

<sup>4</sup>Fox News, May 15, 2023.

<sup>5</sup>Fox News, February 12, 2019.

development (Bush & Clayton 2023) and that more sexist individuals are less likely to believe in climate change and support policies to combat it (Benegal & Holman 2021a). Cross-national studies suggest that males are more likely to be climate skeptics (Tranter & Booth 2015), though gender has also been found to be only weakly correlated with climate concern (Lewis et al. 2019).<sup>6</sup>

However, prior work leaves two critical questions unanswered. First, how does the gendered nature of the climate *policy* itself impact public support for it? Specifically, do policies that challenge traditional conceptions of masculinity—such as meat-eating and car-driving—receive lower levels of support than comparable policies that are less gendered? Second, do female leaders face a larger penalty than male leaders when proposing policies that challenge traditional conceptions of masculinity? The anecdotes above highlight an implicit assumption that masculine-threatening policies are more likely to be opposed than more neutral policies, particularly so when such policies are advanced by women like Kamala Harris.

Drawing on the sexism and “going against type” literatures (e.g., Nincic 1988; Cowen & Sutter 1998; Cukierman & Tommasi 1998; Kreps et al. 2018; Saunders 2018; Mattes & Weeks 2019; Blair & Schwartz 2023), we theorize that the answer to all of these questions is “yes.” Given that there is a gendered hierarchy that privileges traditional conceptions of masculinity—including in the domain of climate (Daggett 2018)—climate policies that challenge these conceptions should be more likely to be met with resistance.

Not only do we expect the perceived gender threat of the policy itself to affect public support, but we also argue that the sex of the policymaker matters. Specifically, we suggest that women policymakers face greater opposition when advocating for masculine-threatening climate policy compared to male policymakers. This expectation derives from the logic

---

<sup>6</sup>See also Leiserowitz (2006); McCright & Dunlap (2011); Hornsey et al. (2016); Egan & Mullin (2017); Hazlett & Mildemberger (2020) on public attitudes on climate change and Bernauer & Gampfer (2015); Drews & van den Bergh (2016); Bergquist et al. (2020); Arias & Schwartz (2024); Arias & Blair (2024) on public support for climate policy.

of going against type. When, for instance, hawkish leaders act in ways contrary to their expected disposition by proposing peace with foreign enemies, then public support is greater than when dovish leaders take identical actions (Mattes & Weeks 2019). This dynamic has also been shown to hold for leader gender, as Blair & Schwartz (2023) demonstrate that female leaders are punished more for proposing peace than male leaders because women are perceived of as more inclined to peace and non-violence than men. Thus, when they propose peace, they act according to type. We argue a similar dynamic holds in the realm of climate policy, as female leaders should be perceived as more disposed to propose policies that challenge traditional ideas of masculinity than male leaders. Consequently, when female leaders propose these policies, they will be viewed as acting according to type and punished.

To test our theoretical expectations, we deploy two pre-registered survey experiments on representative samples of the US public. First, we conduct a validation test to assess whether policies such as restrictions on red meat, automobiles, and the US military are in fact perceived as more masculine-threatening by members of the public than a set of comparable, but more gender-neutral, climate policies we constructed. Second, we test how support for climate policy and US presidents change depending how masculine-threatening the climate policies are and the sex of the leader proposing them.

In accordance with our theoretical expectations, we find strong evidence that criticizing masculine-threatening climate policies is an effective political strategy. On average, masculine-threatening climate policies are over 17 *percentage points* less likely to be supported than comparable non-masculine-threatening policies. The American public is also almost 12 *percentage points* less likely to vote for leaders that propose these kinds of policies. These results are not simply driven by negative reactions from men, but hold across key subgroups in the population, illustrating a broad backlash effect. From a policy perspective, these findings indicate that Democrats, climate activists, and other supporters of climate action have strategic political incentives to advocate for non-masculine-threatening climate

policies that arouse less opposition than more gendered climate policy proposals. While prominent Democrats have, in fact, not proposed banning hamburgers—despite Republican claims to the contrary—they have hinted at the need to reduce meat production and consumption. As Representative Alexandria Ocasio-Cortez said, “It’s not to say you are going to force everybody to go vegan or anything crazy like that. But it’s to say, listen, we’ve got to address factory farming, maybe we shouldn’t be eating a hamburger for breakfast, lunch and dinner.”<sup>7</sup> Our theory and empirical evidence indicate that this is a politically risky strategy that could be a boon to Republicans and other climate policy skeptics. Buttressing this finding, we validate that policies like banning meat and large automobiles are in fact perceived as more masculine-threatening by the public than more neutral policies—an assumption that heretofore had lacked empirical evidence.

However, we do not find evidence that female presidents in particular are punished more for proposing masculine-threatening climate policies than male leaders. While masculine-threatening climate policies are broadly unpopular, they appear to be no more or less unpopular when proposed by female leaders. Supplemental analyses from our experiment demonstrate that our going against type theory does not operate for two primary reasons. First, our logic was dependent on the public being more surprised when male leaders proposed masculine-threatening climate policies than when women leaders did so, but we find evidence that was not the case—even though climate policy is perceived as a feminine issue domain. While respondents were more surprised that any president proposed these kinds of policies, they were not less surprised when women proposed them than when men did. Second, while gender stereotypes are present in the realm of climate policy, we find evidence that they are weaker than in other policy areas, such as foreign policy (Blair & Schwartz 2023). Substantively, the lack of support for this hypothesis suggests that potential female US presidents—such as Kamala Harris—are not uniquely vulnerable to Republican criti-

---

<sup>7</sup>New York Times, March 8, 2019.

cisms about masculine-threatening climate policies relative to male presidents. Instead, any president who proposes these kinds of policies—man or woman—is at political risk.

Overall, our project makes several significant contributions. First, we connect two major literatures in political science—research on climate and gender—to build a novel theory about how the gendered nature of climate policy itself can impact public opinion dynamics. This builds on, but is distinct from, prior work, which mostly focuses on how the gender identity and sexist attitudes of individual members of the public impacts their support for climate policy (Tranter & Booth 2015; Lewis et al. 2019; Benegal & Holman 2021a; Bush & Clayton 2023). Our project provides further evidence that gender plays a crucial role in politics, which is relevant to all the subfields of political science (e.g., Lovenduski 1998; Cohen & Karim 2022; Sjoberg & Thies 2023). Second, our work provides a notable contribution to the prominent literature on going against type (Nincic 1988; Cowen & Sutter 1998; Cukierman & Tommasi 1998; Kreps et al. 2018; Saunders 2018; Mattes & Weeks 2019; Blair & Schwartz 2023), namely by demonstrating that this logic has limitations. If strong enough stereotypes do not exist about the kinds of leaders more and less likely to take certain policy actions, then going against type dynamics are unlikely to operate. Finally, our theory and evidence will inform real-world climate advocates about how to compose coalitions for mitigation action most effectively.

## **Gender and Climate Attitudes**

The existence of gender differences in climate attitudes in the United States is well documented, both when it comes to generalized attitudes on climate change (Leiserowitz 2006; McCright & Dunlap 2011; Hornsey et al. 2016; Egan & Mullin 2017; Hazlett & Mildemberger 2020) and on support for specific types of climate policies (Bernauer & Gampfer 2015; Drews & van den Bergh 2016; Bergquist et al. 2020; Arias & Schwartz 2024). Cross-national studies

suggest that males are more likely to be climate skeptics (Tranter & Booth 2015), though gender has also been found to be only weakly correlated with climate concern (Lewis et al. 2019).

Several mechanisms have been posited for these differences. McCright (2010) theorizes that the gender gap on climate concern arises because of gendered socialization patterns, under which women are socialized to be care-giving and nurturing. These patterns of socialization lead women to care more than men about community health and safety, resulting in greater concern about environmental issues. McCright (2010) further finds that gender differences *are not* driven by differences in scientific knowledge.

Economic and material preferences are another important mechanism driving differences in climate attitudes between men and women. Bush & Clayton (2023), for example, document a gap in climate concern in developed states, where men become less likely to express concern about climate change than women. They suggest that the gap is driven by men's expectation that they would bear greater costs of decarbonization policies, both in terms of the effects on employment and transition sectors and because of differences in consumer habits, with men tending to engage more in carbon-intensive activities. In addition to their direct, individualistic concerns about such costs, Bush & Clayton (2023) also find that these gendered consumption patterns lead men to make higher evaluations of the costs of climate policy based on a sociotropic logic, showing sensitivity to the collective costs borne by men in general. Declining jobs in fossil-fuel industries—traditionally dominated by men—undermine stereotypical male-led family dynamics as women enter the labor force to supplement for lost income (Clark et al. 2022). Importantly, while the economic threat of decarbonization is mainly to male-dominated workforces, Clark et al. (2022) theorize and find that the backlash to decarbonization holds for women as well, who are sensitive to shrinking household earnings and increased workloads, as women take on employment in addition to bearing the majority of domestic labor.

Besides material preferences, beliefs about gender-threat are another principal theorized driver of the gender gap in climate attitudes. Climate policy poses a potential threat to male status and traditional beliefs about masculinity. These dynamics are mutually reinforcing, as a perceived decline in the social value of traditional masculinity potentially challenges its importance in constituting the social hierarchy (Rivera-Rodriguez et al. 2022). Fears of status decline have been shown to drive political preferences and behaviors in a variety of contexts (e.g., Van Dyke & Soule 2002; Craig & Richeson 2014). Individuals that benefit from existing social hierarchies —i.e., those with high status—have strong incentives to defend those systems and to oppose potential threats (Kahan et al. 2007). The disruption to the traditional, male-dominated economic and social hierarchy that decarbonization would entail is more costly for males, who benefit the most from the status quo (Kahan et al. 2007; McCright & Dunlap 2011; Bush & Clayton 2023). The economic shifts of decarbonization lead to fear of cultural change and a loss of the traditional male-led family dynamic. The loss of male status fuels “right-wing political movements looking to restore traditional, patriarchal divisions of labor within families” (Clark et al. 2022).

The desire to maintain a status quo that privileges the power of men reinforces attitudes and structures of misogyny and sexism. Misogyny is deployed as a political strategy to garner support for climate opposition and to delegitimize climate policy and advocates, labeling them as feminine and thus inferior, threatening, or anti-national. As a political rhetorical tactic, misogyny “functions not simply as hatred or disgust for women, but as a way of accessing a gendered hierarchy whereby that which is labeled ‘feminine’ is perceived as inferior, devalued, and is amenable to be attacked” (Kaul & Buchanan 2023, 315). Individuals with higher levels of misogynistic and sexist attitudes are less likely to believe in climate change and support policies to combat it (Benegal & Holman 2021a; Kaul & Buchanan 2023), especially in issue areas that are “owned” by women (i.e., feminized policy domains) or are seen



as benefitting women (Beauregard et al. 2022).<sup>8</sup>

What specifically comprises the masculine status quo when it comes to beliefs and stereotypes related to climate change? A strong association between traditional American conceptualizations of masculinity and fossil fuel-intensive industries, consumables, and activities undergirds the perceived cultural threat that decarbonization poses to American males. Fossil fuel consumption and production constitute a crucial part of the identity of the American male that is under threat from progressive climate policy. This is a narrative that right-wing and conservative political figures amplify, as shown in the opening examples. As Daggett (2018, 32) describes, such narratives emphasize a history in which

[T]he American way of life was centered around a version of white, patriarchal rule in which the achievement of hegemonic masculinity required intensive fossil fuel consumption and, for the working- or middle-class, jobs within or reliant upon fossil fuel systems...extracting and burning fuel was a practice of white masculinity.

However, while prior work has thoroughly examined how the gender identity and gender-related attitudes of the public impact support for climate action, as described above, relatively less work in political science has been done to assess how variation in the gendered nature of climate policy itself impacts public opinion, or even to interrogate assumptions about which types of climate policies are perceived as gender-threatening. This is a notable lacuna that we turn towards filling next.

---

<sup>8</sup>Sexist attitudes constitute an “investment in gendered hierarchies” (Benegal & Holman 2021a) and a “system-justifying belief that enables people to explain and defend inequalities between women and men” (Beauregard et al. 2022) that are potentially threatened by climate mitigation and adaptation policies.

# Theory: Policy Type, Leader Sex, and Public Opinion

## Masculine-Threatening Climate Policies

Building on prior work that analyzes how the gender identity of individual members of the public impacts support for climate change mitigation policies, we develop a theory about how the gendered nature of the climate policy itself affects public opinion. In particular, we argue that public support will be lower for masculine-threatening climate policies relative to non (or at least less) masculine-threatening policies for two reasons.

The first reason relates to the role that gender and masculinity play at both the individual and societal level. At the individual level, scholars have argued that masculinity is “precarious” or “elusive” (Vandello et al. 2008), meaning that individuals need to continually prove their manhood or risk losing it. This creates significant anxiety—among men in particular—towards anything that might threaten their masculinity (Ducat 2005). Because exhibiting masculinity provides social benefits, men have strong incentives to defend masculine ideals and structures and to attack threats to their masculine identity, or to potential devaluation of the role of masculinity in the social hierarchy (Kahan et al. 2007). For example, threats to masculinity (e.g., having men engage in feminine activities like hair-braiding) have been experimentally shown to elicit reactions of anger (Jakupcak et al. 2005), physical aggression (Bosson et al. 2009), and concerns about reputation (Dahl et al. 2015). Threatening a man’s masculinity has even been demonstrated to impact their political attitudes, such as increasing support for war (Willer et al. 2013) or support for stereotypically masculine political candidates, such as Donald Trump (Carian & Sobotka 2018).

This relationship may be due to bio-evolutionary factors related to men’s need to attract female mates (Geary 1998), socialization (Eagly & Wood 1999), or a combination of both. As we discussed above, because men benefit from a social order that privileges masculinity,

social and economic fears of upending this order also are important motivators for hostile responses to masculine threats (e.g., [Rivera-Rodriguez et al. 2022](#); [Craig & Richeson 2014](#); [Van Dyke & Soule 2002](#)). Importantly, it is not only men who participate in and derive benefits from gender hierarchies. Women, too, are potentially subject to household-level loss of status and economic security when masculine orders are threatened ([Clark et al. 2022](#)). Overturning these traditional belief systems could also generate high levels of uncertainty about potential policy effects across populations.

These dynamics apply to the realm of climate change because environmental protectionism is often associated with stereotypically feminine traits like caring and nurturing ([Daggett 2018](#); [Bush & Clayton 2023](#)). Even if climate policy as a whole is considered a relatively feminine domain, we argue that the level of threat to masculinity varies depending on the particular characteristics of the policy itself ([Swim et al. 2020](#)). In other words, some climate policies are more masculine-threatening than others. This may explain why Republicans—many of whom have explicitly aired concerns about declining levels of masculinity in the United States—have highlighted some types of theoretical climate policies (e.g., restrictions on meat-eating and gas-powered cars) more frequently than others in their political messaging rather than others.

The second reason we argue that public support will be lower for masculine-threatening climate policies relative non-masculine-threatening policies is that the kinds of activities the former restrict are generally quite popular. For example, according to a 2023 Gallup poll, the overwhelming majority of Americans (about 95%) eat meat and are not vegetarians (4%) or vegans (1%).<sup>9</sup> Similarly, millions of Americans rely on having large, gas-powered cars that they can use to transport their (sometimes large) families without having to stop for long periods of time to recharge (like electric vehicles with limited range sometimes require). These habits, which themselves may partially be the result of hegemonic masculinity ([Connell](#)

---

<sup>9</sup>Gallup, August 24, 2023.

& Messerschmidt 2005), motivate why we expect our theory to hold among women in addition to men.<sup>10</sup>

Given prior evidence that threats to masculinity provoke negative reactions and the fact that many masculine-threatening climate policies risk disrupting habits many Americans have formed, we pre-registered a hypothesis that climate policies that are perceived as threatening to traditional conceptualizations of masculinity will obtain lower support than less-threatening policies. Policies that would restrict traditionally ‘manly’ ideals, such as eating meat, driving large cars, and aggressively providing for national defense, are expected to be seen as masculine-threatening and thus receive lower support.

***H<sub>1</sub>: Support for masculine-threatening climate policies will be lower than support for non-masculine-threatening climate policies.***

## **The Interaction of Masculine-Threatening Policies & Leader Sex**

Numerous historical examples illustrate the paradoxical fact that substantial policy shifts are often taken by leaders and parties whose traditional issue positions would oppose the policy in question. For instance, it took the Hungarian Socialist Party to initiate neoliberal market reforms in the immediate post-Cold War period (Cho 2014). More famous is the old adage that “only Nixon could go to China”, which suggests hawkish leaders face fewer domestic political barriers than dovish leaders to pursuing conciliation with foreign adversaries. The logic of the hawk’s advantage and the dove’s disadvantage is simple. Conciliatory policies pursued by dovish leaders are perceived as dispositional and rooted in those leaders’ personal, ideological preferences. By contrast, conciliatory policies pursued by hawkish leaders are perceived as situational and rooted in prudent evaluations of the circumstances at hand. For example, if a leader as hawkish as Nixon was willing to buck his natural instinct and

---

<sup>10</sup>Though we did pre-register a hypothesis that masculine-threatening climate policies would be more unpopular among men than women.

attempt rapprochement with China, then the policy must truly be in the national interest. Alternatively, if a dove—like Hubert Humphrey—had pursued the same policy, then the public would be uncertain whether they were doing so for purely ideological reasons or because the policy was truly in the national interest. Prior research has employed controlled experiments, large-N statistical analysis, historical case studies, and game-theoretic models to provide evidence for this dynamic (Nincic 1988; Cowen & Sutter 1998; Cukierman & Tommasi 1998; Kreps et al. 2018; Saunders 2018; Mattes & Weeks 2019).

Even more relevant to our purposes, Blair & Schwartz (2023) theorize and find empirical evidence that going against type dynamics can also apply specifically to leader sex. Because of gender stereotypes that men are stronger, tougher, and more aggressive in the realm of national security than women, it is more surprising when male leaders pursue peace with foreign adversaries and less surprising when female leaders pursue peace. Consequently, the public is more skeptical when women leaders act “according to type” and pursue peace, and less circumspect when male leaders pursue an identical policy and act “against type.”

Our theoretical point of departure is to also consider whether a similar dynamic of acting against type holds for leader sex in the realm of climate policy, which prior work has not done. Prescriptive gender stereotypes hold that men should behave in accordance with the characteristics of traditional masculinity and women should act in line with the elements of traditional femininity. When men or women engage in counter-stereotypical behavior, prior work shows that this elicits surprise among members of the public (Kunda et al. 1990; Hutter & Crisp 2005; Rudman & Glick 2010; Prati et al. 2015). Just as a female leader pursuing peace is less surprising than a male leader pursuing peace, we contend that a female president proposing masculine-threatening climate policies is likely to be less surprising than a male leader proposing identical policies. First, since men are expected to be more likely to do things like eat meat and drive big, gas-guzzling cars, it should be more unexpected when they propose policies that restrict these activities. Second, by contrast,

female leaders should be perceived as dispositionally more likely to propose climate policies that challenge traditional conceptions of masculinity. As previously noted, environmental protectionism itself is associated with stereotypically feminine traits (Daggett 2018; Bush & Clayton 2023) like being nurturing and other-regarding. For both of these reasons, masculine-threatening policies are doubly unsurprising coming from female leaders, and should therefore be more credible when they come from male leaders than female leaders. Coming from a male president, members of the public should be more likely to believe that masculine-threatening climate policies are essential for mitigating climate change.

This discussion leads to the following pre-registered hypothesis about the interaction of masculine-threatening policies and leader sex. No study that we are aware of has theorized or tested whether female leaders face a disadvantage in pursuing particular types of climate policies, as we do here.

***H*<sub>2</sub>: Masculine-threatening climate policies should obtain less support when proposed by female leaders compared to male leaders.**

Our primary theoretical expectations are summarized in Table 1. Per *H*<sub>1</sub>, masculine-threatening policies should always receive less support than non-masculine-threatening policies, but masculine-threatening policies proposed by women leaders should be the least popular of all.

Table 1: *Theoretical Predictions*

		<i>Type of Climate Policy</i>	
		Masculine-Threatening	Non-Masculine-Threatening
<i>Leader Sex</i>	Female	Lowest Support	Higher Support
	Male	Second Lowest Support	Higher Support

## Research Design

To test our theoretical expectations, we carried out two pre-registered national survey experiments on the American public. Our primary experiment is a 2x2 between-subjects design, where we randomly vary whether respondents are presented with a series of masculine-threatening or more neutral climate change policy proposals, and whether these policies are proposed by a male or female US president.

We first ask respondents the conventional battery of demographic questions, as well as a series of attitudinal questions. For example, we measure respondents' baseline belief in climate change, degree of hostile sexist attitudes (Glick & Fiske 1997; Schaffner 2022), and level of traditional masculinity ideology (McDermott et al. 2019).<sup>11</sup> We also probe whether subjects trust male or female policymakers more across a range of different issue-areas, such as climate change, healthcare, and the military. To mitigate the negative effects of respondent inattention, we include a standard pre-treatment attention screener that doubles as a bot filter (Berinsky et al. 2014). Prior research demonstrates that removing inattentive respondents *before* the treatment is assigned does not lead to bias (Aronow et al. 2019).

Following the pre-treatment questionnaire, respondents are randomly assigned to the treatment conditions.<sup>12</sup> The first treatment manipulates the sex and gender identity of the US president. Following work by Schwartz & Blair (2020) and Blair & Schwartz (2023), we operationalize this treatment by informing respondents that the president's name is either Erica/Stephanie Richards or Eric/Stephen Richards. The male and female name combinations we utilize are extremely similar to each other, but clearly prime sex. They should

---

<sup>11</sup>We measure masculinity using the Male Role Norms Inventory Very Brief (MRNI-VB) scale, which is a 5-item measure of masculinity drawn from the larger 21-item Male Role Norms Inventory-Short Form (MRNI-SF) scale developed by psychologists. The MRNI-VB has been validated as a measure by previous research (McDermott et al. 2019, 2020; Levant et al. 2022).

<sup>12</sup>We block randomize based on respondent gender and political identification since these factors have been shown to impact climate change policy preferences.

not, however, prime any notable politician because no former US presidents or vice presidents share any of the names we employ. To further amplify the treatment, we also use the pronouns “he” and “she” to refer to the president.

Respondents are asked to imagine the year is 2030, are presented with this hypothetical president, and are informed that the president is a Democrat. We control for—rather than experimentally manipulate—the president’s political affiliation because we did not think it was (currently) plausible that a Republican president would propose ambitious climate policies, especially ones that threaten traditional conceptions of masculinity. As the opening examples of this paper make clear, it is Republican politicians that are harshly criticizing these kinds of proposals (real or imagined) by Democratic leaders. Therefore, to maintain the realism and external validity of the experiment, we felt it prudent not to manipulate this factor, though doing so would be a fruitful avenue for future research. Nevertheless, controlling for presidential political identification enables us to avoid any potential lack of information equivalence across experimental conditions that could lead to confounding (Dafoe et al. 2018).

After being given information about the US president, respondents are then randomly assigned to the second treatment condition. They either receive a series of six climate policy proposals from President Richards that threaten traditional conceptions of masculinity, or six *comparable* climate policy proposals that are more neutral and non-masculine-threatening. We include multiple policy areas to account for potential heterogeneous effects across different domains, and to allow us to mitigate the potential effects of different policy types (i.e., differing levels of support for taxation-based versus regulation-based policy within the same issue domain). The masculine-threatening climate policies are broken into three categories: (1) meat-related policies, (2) automobile-related policies, and (3) military-related policies. We choose these three categories because these are issue-areas where Democrats have explic-



itly been criticized by Republicans for their (again, real or imagined) climate proposals.<sup>13</sup> We also contend that because meat, automobiles, and the military are viewed as relatively masculine domains (e.g., Adams 1990; Landström 2006; Rozin et al. 2012; Rothgerber 2013; Plananska et al. 2023), climate policies in this area can threaten masculinity. This is an assumption that we empirically validate with a pre-test (discussed in more detail below).

For each of the three masculine-threatening policy areas we present respondents with two climate policies of similar policy type (i.e., both proposals would be for a ban or a tax-related initiative) to mitigate potential differences caused by specific question wording.<sup>14</sup> For the meat domain, we ask the extent to which respondents would (a) support a tax on meat consumption, and (b) support tax breaks to farmers that switch from growing meat to vegetables. Tax-related policies designed to reduce meat consumption in an effort to combat climate change (and improve public health) have been extensively studied by scholars, as well as proposed by activists and even lawmakers themselves (e.g., Funke et al. 2022; Pechey et al. 2022; Klenert et al. 2023).<sup>15</sup> Therefore, these are quite plausible policy proposals that intersect with Republicans’ concerns about Democrats wanting to (as Seb Gorka, former Trump advisor said) “take away your hamburgers.”<sup>16</sup>

With respect to automobiles, we measure respondent support for (a) banning the sale of gasoline-powered cars by 2035, and (b) banning the sale of non-commercial trucks and SUVs by 2035. Again, these policies are quite plausible. For example, California banned new gas-powered cars from being sold after 2035, and other states are following suit. These

---

<sup>13</sup>For example, in the military realm, Ted Cruz commented that, “Perhaps a woke, emasculated military is not the best idea.” Project 2025 has also heavily criticized the military’s “wokeness” and focus on climate change as a “detriment to the Army’s core warfighting mission” (Dans & Groves 2023, 108).

<sup>14</sup>We assess each question individually in the Appendix—in general, there were no substantive differences in responses between the proposals within policy domains. In the main text, we aggregate both questions within each policy domain.

<sup>15</sup>See also Fox News, August 7, 2019.

<sup>16</sup>The New Yorker, March 3, 2019.

proposals also fit with Republicans’ concerns—highlighted at the outset of the paper—that Democrats are going to “take away...the automobile as we know it” and take people’s “gasoline engine[s].”

Finally, respondents assigned to the masculine-threatening policy treatment group are also presented with two policies related to the military. We assess their support for (a) having the military use cleaner sources of energy to power their bases and vehicles, and (b) having the military develop an environmental justice plan that outlines how the Department of Defense can minimize adverse environmental impacts on disadvantaged communities as a result of their activities. These are real policies the Department of Defense has pursued,<sup>17</sup> and they have been vigorously opposed by Republicans. For example, House Republicans have voted multiple times to block the Department of Defense from implementing presidential executive orders related to climate change.<sup>18</sup> The official 2024 Republican policy platform also calls for getting “woke left-wing Democrats fired as soon as possible” from the military.<sup>19</sup>

Respondents assigned to the non-masculine-threatening policy treatment group are also presented with six climate policy proposals from President Richards. While these policies are designed to be comparable to the masculine-threatening policies, the key difference is that they do not implicate traditional masculine domains or activities to nearly the same extent (if at all). For example, instead of taxes on meat consumption and tax incentives for farmers not to produce meat specifically, we assess respondent support for (a) carbon taxes more generally, and (b) giving farmers tax breaks for adopting practices—such as soil management techniques—that reduce climate change more broadly. Consequently, the basic policy (taxes or tax incentives) is the same, but respondents in the masculine-threatening policy treatment group receive policies related to meat consumption whereas subjects in the non-masculine-

---

<sup>17</sup>Department of Defense, October 7, 2021; Department of Defense, June 12, 2024.

<sup>18</sup>Defense News, August 31, 2023.

<sup>19</sup>USA Today, July 15, 2024.

threatening policy treatment group receive policies related to climate change generally but not meat consumption specifically. It is our contention that policies in the former group threaten traditional conceptions of masculinity to a greater extent than policies in the latter group.

Critically, in both the masculine-threatening and non-masculine-threatening policy treatment groups, we control for both the monetary cost of the policies (to consumers or the government), the impact on climate change the policies are expected to have (e.g., the reduction in greenhouse gas emissions), and the method of policy implementation (i.e., a tax break or a ban). Therefore, the only element that differs between the two treatments is whether the policy implicates a masculine domain or not.

We adopt the same strategy for crafting neutral policy equivalents for the automobile and military-related policies. For the latter, instead of evaluating respondent support for the *military* using cleaner sources of power or adopting an environmental justice plan, we gauge support for the exact same policies applied to the “US government” as a whole. Again, it is our contention that policies targeted towards the military threaten masculinity to a greater extent than those focused on the government writ large. As before, we control for the cost and expected impact of these policies to avoid any lack of information equivalence across experimental conditions (Dafoe et al. 2018).

Finally, for non-masculine-threatening equivalents of banning gasoline-powered cars and large automobiles by 2035, we evaluate respondent support for (a) banning gas-powered heat furnaces by 2035, and (b) banning the sale of thick plastic bottles and containers by 2035. Like gas-powered vehicles, gas-powered heat furnaces contribute to climate change by emitting greenhouse gasses, and thus a total ban on either of them is a comparable policy. Yet, few would say that gas-powered heat furnaces are particularly important for masculinity, whereas cars have been shown to be significant symbols of masculinity. Banning large automobiles and thick plastic bottles/containers is also comparable because both policies

involve trying to limit the size of something to reduce its environmental impact. Again, we control for the cost of these policies to consumers and the expected impact on greenhouse gas emissions to increase their comparability. The different climate policy treatments are summarized in Table 2.

Table 2: Summary of Climate Policy Treatments

	Masculine-Threatening Climate Policy Treatment	Equivalent Non-Masculine- Threatening Climate Policy Treatment
<b>Meat</b>	(a) Meat Tax (b) Farmer Tax Incentives Not to Grow Meat	(a) Carbon Tax (b) Farmer Tax Incentives to Reduce Climate Change
<b>Automobiles</b>	(a) Banning Gas-Powered Cars (b) Banning Large Non-Commercial Cars	(a) Banning Gas-Powered Furnaces (b) Banning Large Plastic Bottles/Containers
<b>Military</b>	(a) DoD Clean Energy Use (b) DoD Environmental Justice Plan	(a) US Government Clean Energy Use (b) US Government Environmental Justice Plan

Our primary dependent variable is support for the six individual climate policies presented to each respondent on a 5-point scale. For simplicity and to reduce measurement error, we create an index measure of aggregate support for these climate policies.<sup>20</sup> We also ask a number of other outcome questions. For example, to provide additional tests of our hypotheses, we assess respondent support for President Richards specifically, their willingness to vote and donate to him or her, to what degree they prioritize having a female US president by 2035, the extent to which they believe the policies will impact key societal groups, and how surprised they were by the president’s policy proposals. The full questionnaire is available in the Appendix.

In addition to our core study, we also conducted a pre-test to validate our assumption that the masculine-threatening policies we utilize are indeed perceived as a greater danger to masculinity than the more neutral policies. For this study, which was also pre-registered, we

<sup>20</sup>Results were robust to both approaches, see Appendix.

presented respondents with all 12 of the policies we use in the main experiment.<sup>21</sup> For each policy, we asked three principal questions. First, to what extent would the policy threaten masculinity? Second, to what degree would this policy hurt men more than women? Third, how much would women be more likely to support this policy than men? If our assumptions are valid, then the policies we categorize as masculine-threatening should score higher on all three of these measures.

We carried out our pre-test validation in April 2024 and our primary study in June 2024. Both studies were conducted in partnership with Lucid, which uses quota sampling to match census benchmarks on age, gender, race/ethnicity, and region.<sup>22</sup> Prior research demonstrates that experiments fielded on Lucid are high-quality and replicate the findings of previous studies (Coppock & McClellan 2019; Peyton et al. 2021). In total, about 600 respondents were surveyed in Study 1 (our pre-test) and 900 respondents were included in Study 2.

## Results

### Validation Pre-Test

Our research design hinges on the assumption that the climate policies we categorize as masculine-threatening are actually perceived as a greater danger to traditional conceptions of masculinity than our control policies. We empirically validate that core assumption in a pre-test. As illustrated in Figure 1, the climate policies we conceive of as more masculine-threatening are indeed viewed as more threatening to masculinity compared to the policies

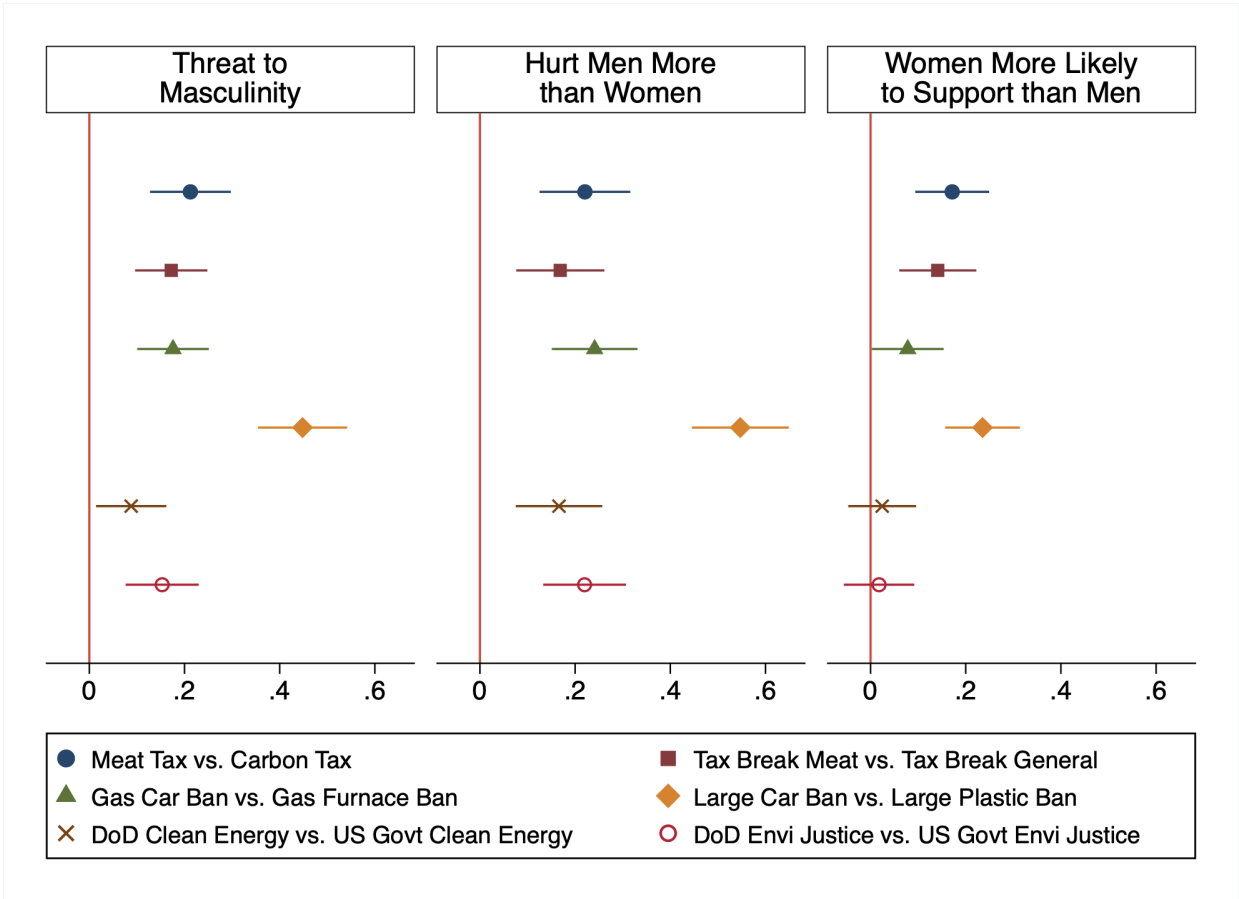
---

<sup>21</sup>Therefore, in contrast to our primary experiment, this study utilizes a within-subject design. As demonstrated in prominent work by Clifford et al. (2021), repeated measure designs are valid tools of causal inference. In fact, they have several major advantages over between-subject designs. Namely, they can lead to “dramatic” gains in statistical power.

<sup>22</sup>Only US adults 18 years or older are eligible to participate.

we assert are more neutral and less masculine-threatening. They are also seen as more likely to hurt men than women and more likely to be supported by women than men. Of the 18 paired differences we estimate, 16 are statistically significant at the 5% level. This includes all 6 of the differences we estimate for the perceived threat to masculinity outcome variable, which relates most directly to our argument.

Figure 1: Pre-Test Validation

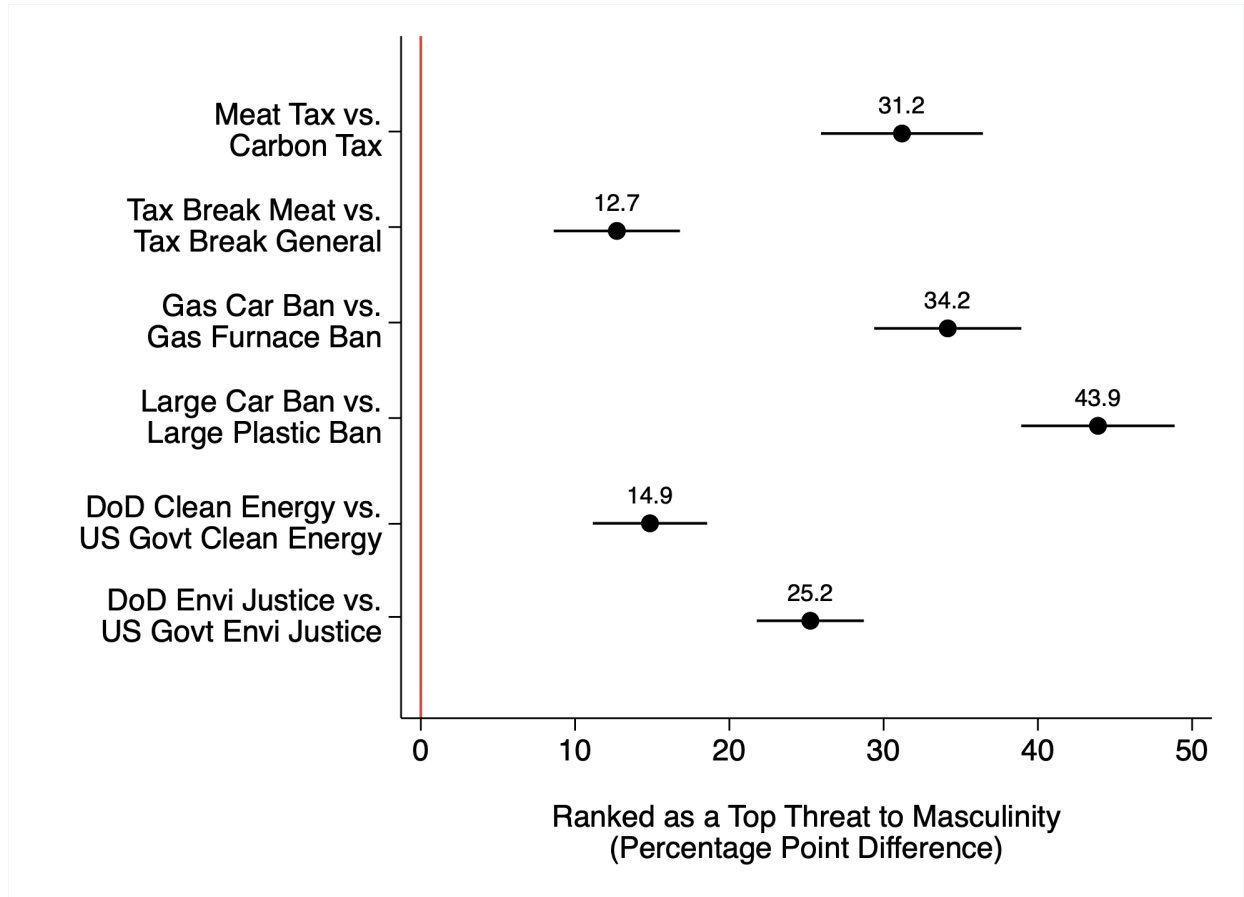


**Note:** Bars are 95% confidence intervals. Outcome variables are on a 5-point scale.

We also asked respondents to rank which four of the climate policies they believed were *most* threatening to masculinity. The results are illustrated in Figure 2 and demonstrate that the policies we expected to be more threatening to masculinity were significantly more likely to be ranked as such compared to our control policies. For example, a tax on meat was

over 31 *percentage points* more likely to be ranked as one of the most threatening policies to masculinity compared to a carbon tax.

Figure 2: Pre-Test: Climate Policies Ranked as Most Threatening to Masculinity



**Note:** Bars are 95% confidence intervals.

These findings are not just restricted to certain subgroups, but hold more broadly. For example, they are robust to Democratic, Republican, independent, female, and male respondents, as well as anthropogenic climate change believers and anthropogenic climate change skeptics or deniers. The only factor that significantly moderates the size of these effects is political identification. Republicans are more likely to believe that the climate policies we identify as masculine-threatening are indeed a threat to masculinity. Given the motivating examples of the paper, this finding makes logical sense. In sum, our pre-test provides strong

validation for the experimental design we utilize in our primary study.

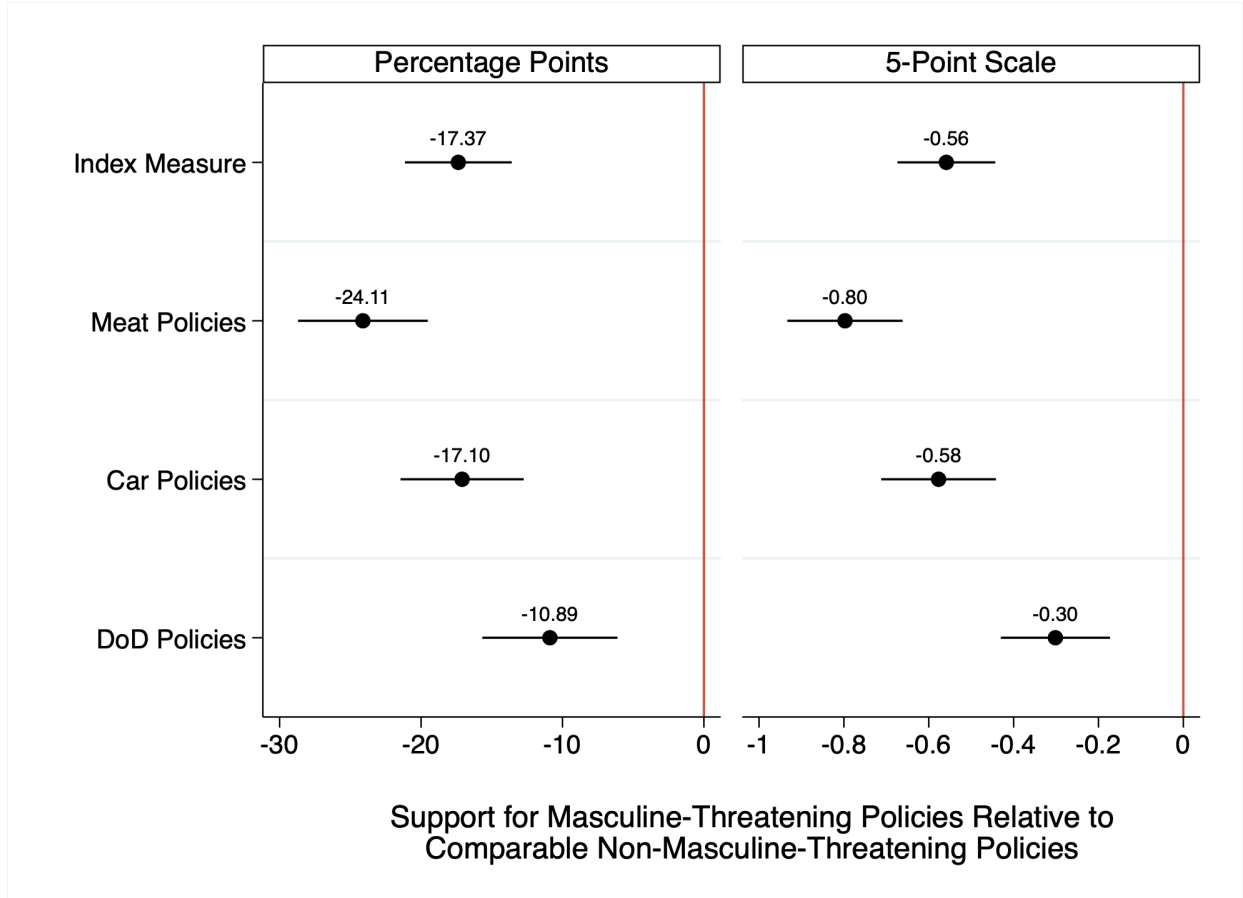
## The Effect of Masculine-Threatening Climate Policies

In accordance with our principal hypothesis ( $H_1$ ), we find strong evidence that masculine-threatening climate policy proposals obtain significantly less support than more neutral proposals. Figure 3 plots support for the masculine-threatening climate policies in each of our three issue-areas relative to support for the comparable non-masculine-threatening policies. On average, masculine-threatening climate policies are over 17 *percentage points* less likely to be supported than comparable non-masculine-threatening policies. The results are also robust when analyzing the six individual policy comparisons separately, *except* there is no statistically significant difference in support for the gas car ban and the gas furnace ban. Both are very unpopular, averaging under 30% support. The unpopularity of masculine-threatening climate policies also bleeds into views of President Richards. For example, on average, respondents who randomly received the masculine-threatening climate policy proposals by President Richards were 11.8 *percentage points* less likely to support and 13.8 *percentage points* less likely to vote for President Richards relative to respondents that received the more neutral set of climate policy proposals from President Richards.

There are several potential mechanisms that can help explain these findings. The first is perceived threat to masculinity. As established in the pre-test, the policies we categorize as masculine-threatening are indeed perceived of as providing a greater challenge to traditional conceptions of masculinity. The second (and perhaps relatedly) is perceptions of who the policy will affect. The masculine-threatening policies are viewed by respondents as significantly more likely to affect them personally and the United States as a whole. Consequently, respondents may not like the masculine-threatening policies because they restrict access to things—such as meat and automobiles—that they personally value. Furthermore, since many in the population share similar values, this explanation can also explain the robustness



Figure 3: The Unpopularity of Masculine-Threatening Climate Policies

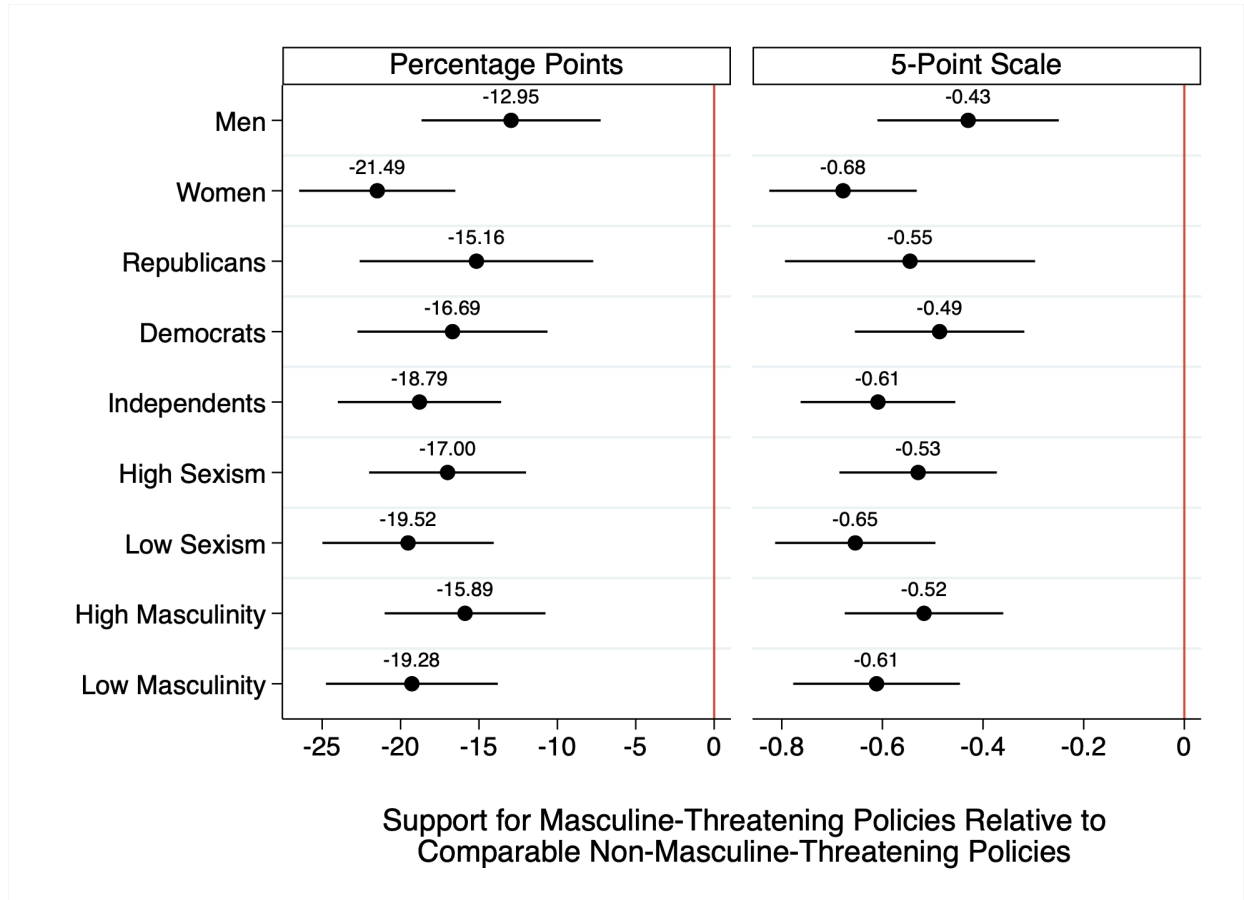


**Note:** Bars are 95% confidence intervals.

of our findings across different subjects.

As in the pre-test, the strong evidence for  $H_1$  is not just present among certain subgroups, but holds more broadly. Figure 4 plots average support for masculine-threatening policies compared to the more neutral policies for key subgroups. Strikingly, the findings hold among both men and women, Republicans and Democrats, respondents high and low in a measure of hostile sexism, and respondents high and low in a measure of masculinity. There is even some (inconsistent) evidence in a regression utilizing controls and interaction terms that the penalty for masculine-threatening policies is slightly stronger among less sexist and less traditionally masculine respondents. There are three potential (and possibly overlapping)

Figure 4: The Effects Among Key Demographics



**Note:** Bars are 95% confidence intervals.

explanations for this.

First, as previously discussed, if masculinity is hegemonic, then we should expect policies that threaten it to be opposed by all subgroups. Second, the masculine-threatening policies restrict access to things, such as meat and large cars, that many Americans value. After all, only a small minority of Americans are vegetarian and many Americans (irrespective of gender) value having a large car to transport their family. In accordance with this logic, vegetarians/vegans are significantly more likely to support the meat-related policies compared to the control policies, and Americans who drive electric cars are more likely to support the

automobile-related policies compared to the control policies.<sup>23</sup> In other words, respondents are more likely to oppose masculine-threatening policies when they would cause a greater disruption to their daily routines and status quo. Third, there could be a strategic element to some respondents' disapproval of masculine-threatening climate policies. For example, if they have second-order beliefs that these kinds of proposals will be unpopular and hurt the climate change cause more broadly, then they may disapprove of them for that reason rather than because of their own, first-order preferences (Mildenberger & Tingley 2019). Nevertheless, since women and respondents that score low in sexism/masculinity are also specifically more likely to believe that masculine-threatening policies will impact them personally than non-masculine-threatening policies, we doubt second-order beliefs are driving our results.

On balance, these findings suggest several practical implications, especially because the effect sizes are so large. It will be more politically challenging for policymakers and climate activists to gain public support for climate policy proposals that are viewed as anti-masculine. Therefore, even if there is a strong policy rationale for specifically targeting things like meat farming and consumption, it may make more sense from a political perspective to pursue comparable non-masculine-threatening policies that have a similar substantive effect on climate change but do not arouse as much opposition. In particular, masculine-threatening policies related to meat and cars are significantly less popular than those targeting the military, and thus policymakers should be especially cautious when legislating in those areas.<sup>24</sup> On the other hand, and more optimistically for supporters of climate action, we find no statistically significant evidence that proposing masculine-threatening climate policies reduces the priority respondents put on addressing climate change more generally or how serious a problem they view climate change. Proposing masculine-threatening climate policies will

---

<sup>23</sup>These effects hold in regressions with interaction terms and our full suite of control variables.

<sup>24</sup>The within-subject difference between, for example, climate policies targeting meat and climate policies targeting the military is statistically significant.

not necessarily tarnish all climate mitigation efforts.

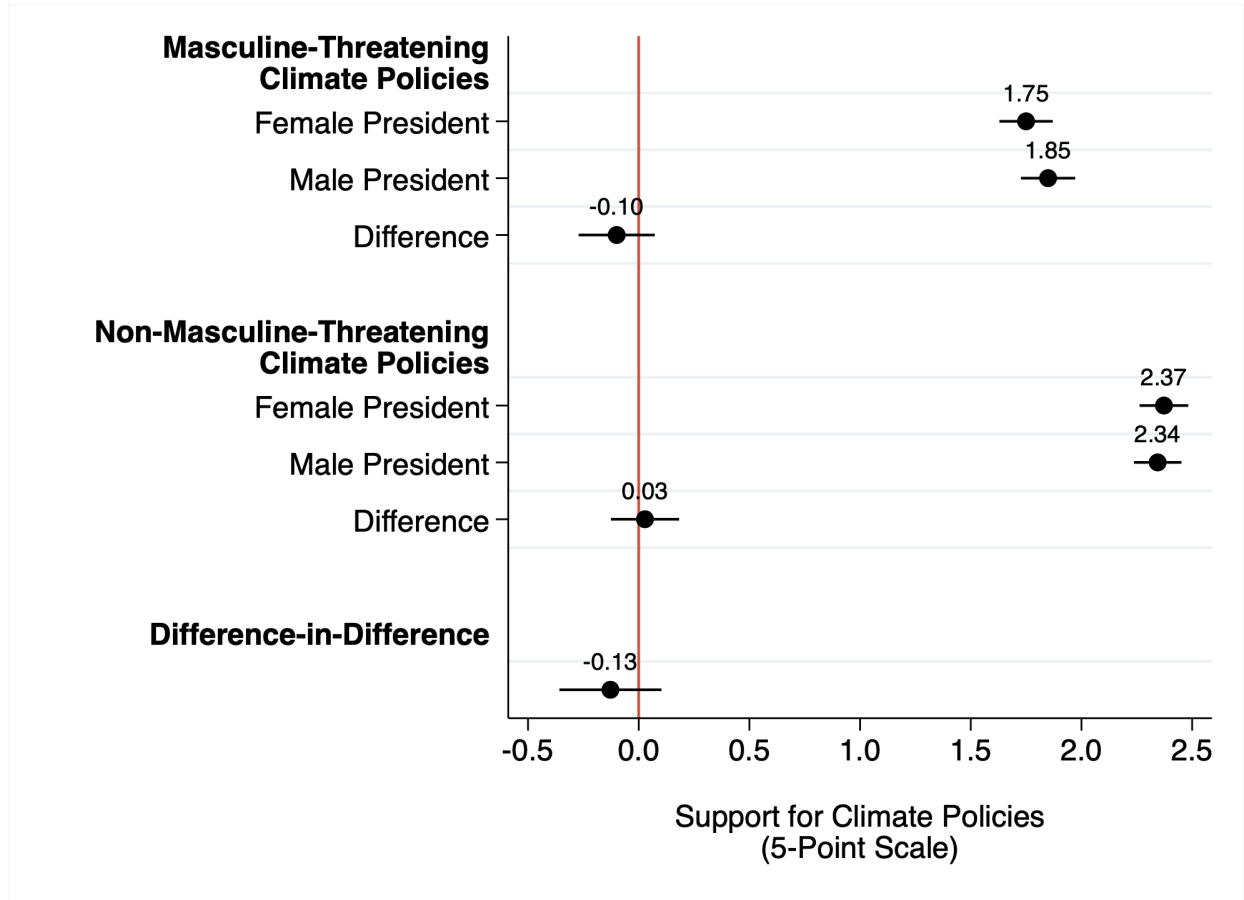
To the extent Republicans can convince the public that Democrats actually do support masculine-threatening climate policies, their messaging approach has the potential to be quite effective. However, two caveats are in order. First, Republicans have often exaggerated what Democrats are proposing. For example, no major Democrat has actually proposed banning hamburgers. It may therefore be challenging for Republicans to convince the mass public that Democrats hold these policy positions. Data from our experiment provides suggestive evidence for this claim, as respondents were over 9 *percentage points* more surprised when President Richards proposed masculine-threatening policies compared to when he or she proposed more neutral policies. In other words, despite Republican messaging, the public has not fully internalized a belief that Democratic policymakers clearly support these kinds of policies.

Second, we measured the extent to which respondents planned to vote for Republican candidates at multiple levels of government. We found no evidence that President Richards proposing masculine-threatening policies increased support for Republican candidates. However, this null result could simply be due to the explicitly hypothetical nature of the study, which might prevent respondents from updating their vote choices in the real world. Still, given the reduction in President Richards' support for proposing these kinds of policies, Republicans may stand to gain politically if Democratic leaders in real life follow suit.

## **The Effect of Leader Sex**

In contrast to our pre-registered theoretical expectations ( $H_2$ ) and the logic of going against type, we do not find compelling evidence that support for masculine-threatening climate policies is lower when proposed by female leaders rather than male leaders. Our findings are summarized in Figure 5. Starting with an analysis of the masculine-threatening policies, support for them is slightly lower when they are proposed by a women president rather than a

Figure 5: The Effect of Leader Sex on Support for Climate Policies



Note: Bars are 95% confidence intervals.

man, but the difference is not statistically significant. For non-masculine-threatening policies, support is actually a bit higher when proposed by a woman, but, again, the difference is not statistically significant. The key test of  $H_2$  is the difference-in-difference estimate located at the bottom of the figure. Since one possibility is that support for policies proposed by women leaders is always lower no matter whether they threaten masculinity or not, it is necessary to compare support for masculine-threatening policies proposed by female leaders relative to male leaders to support for non-masculine-threatening policies proposed by female leaders relative to male leaders (Mattes & Weeks 2019; Blair & Schwartz 2023). As shown in Figure 5, the difference-in-difference is in the expected direction, but is not close to statistical

significance ( $p = 0.277$ ).

This null result also holds when utilizing a binary measure of support for the climate policies, assessing support for President Richards specifically rather than the climate policies more generally, and including control variables. We also find no evidence of heterogeneous effects based on respondent political identification, gender, hostile sexism, or masculinity. While masculine-threatening climate policies are unpopular, they appear to be no more or less unpopular when proposed by female leaders.

What explains this null result? Why does the going against type logic not operate for female leaders in the case of climate policy when it does in other domains, such as foreign policy (Blair & Schwartz 2023)? All going against type arguments rest on the assumption that certain types of policy proposals (e.g., war or peace) are more or less surprising depending on the characteristics of the leader (e.g., a hawkish or dovish leader). It is these perceived out-of-character actions that can make policies either more or less credible to the public. For example, if a leader as hawkish as Nixon believed it was prudent to make peace with China, then that suggests the policy is truly in the national interest rather than just in line with the leader's personal dispositions. For these conclusions to be drawn, however, a strong scheme aligning expected policy proposals with identifiable characteristics must exist in the minds of the public. If such a schema is weak or non-existent, leader characteristics will not lead the public to generate expectations based on the logic of types.

If going against type logic applies to the domain of climate policy in the way we hypothesized, then masculine-threatening climate policies proposed by male leaders should be more surprising than masculine-threatening climate policies proposed by female leaders. That would mean that male leaders are acting against type when they propose these kinds of policies, which might increase their credibility. By contrast, female leaders would be acting according to type and so would have a harder time convincing the public that these policies are prudent. However, data from our experiment suggests this assumption was incorrect,

and that the schema of type is weak or nonexistent when it comes to leader gender and climate positions. While respondents were more surprised that *any kind* of president proposed masculine-threatening policies relative to more neutral policies (ATE=9.3 *percentage points*;  $p=0.009$ ), they were not less surprised that female presidents proposed these kinds of policies relative to male presidents (ATE=3.8 *percentage points*;  $p=0.586$ ). Since proposing these kinds of policies was not viewed as more out-of-character for male presidents, going against type logic cannot operate.

It also appears to be the case that gender stereotypes in the realm of climate policy are lower than in other areas, such as defense and healthcare. Before respondents were presented with the treatments, we asked them the extent to which they trusted male or female policymakers more in various policy areas. For example, when it comes to military affairs, over 35% of respondents said they were more likely to trust a male leader and just 10% said they were more likely to trust a female leader—a 25 *percentage point* gap. In the realm of climate policy, about 20% of respondents indicated they would be more likely to trust a female leader and 10% said they would be more likely to trust a male leader—a 10 *percentage point* gap. Our respondent pool was thus more trusting of male leaders to handle military policy than of female leaders to handle climate policy ( $p<0.001$ ). This all suggests that gender stereotypes are lower in the realm of climate policy than foreign policy, which helps explain why going against type dynamics hold in the latter (Blair & Schwartz 2023) but not the former. Gender stereotypes are even stronger when it comes to healthcare than they are for climate policy. Over 32% of respondents said they were more likely to trust a female leader to deal with healthcare and just 9% said they were more likely to trust a male leader—a 23 *percentage point* gap, which is larger than the gap for climate policy. Despite the fact that environmental protection aligns with traditionally feminine traits, there does not appear to be as strong a “type” with respect to leader gender and climate.

Again, these findings indicate that while masculine-threatening climate policies are gen-

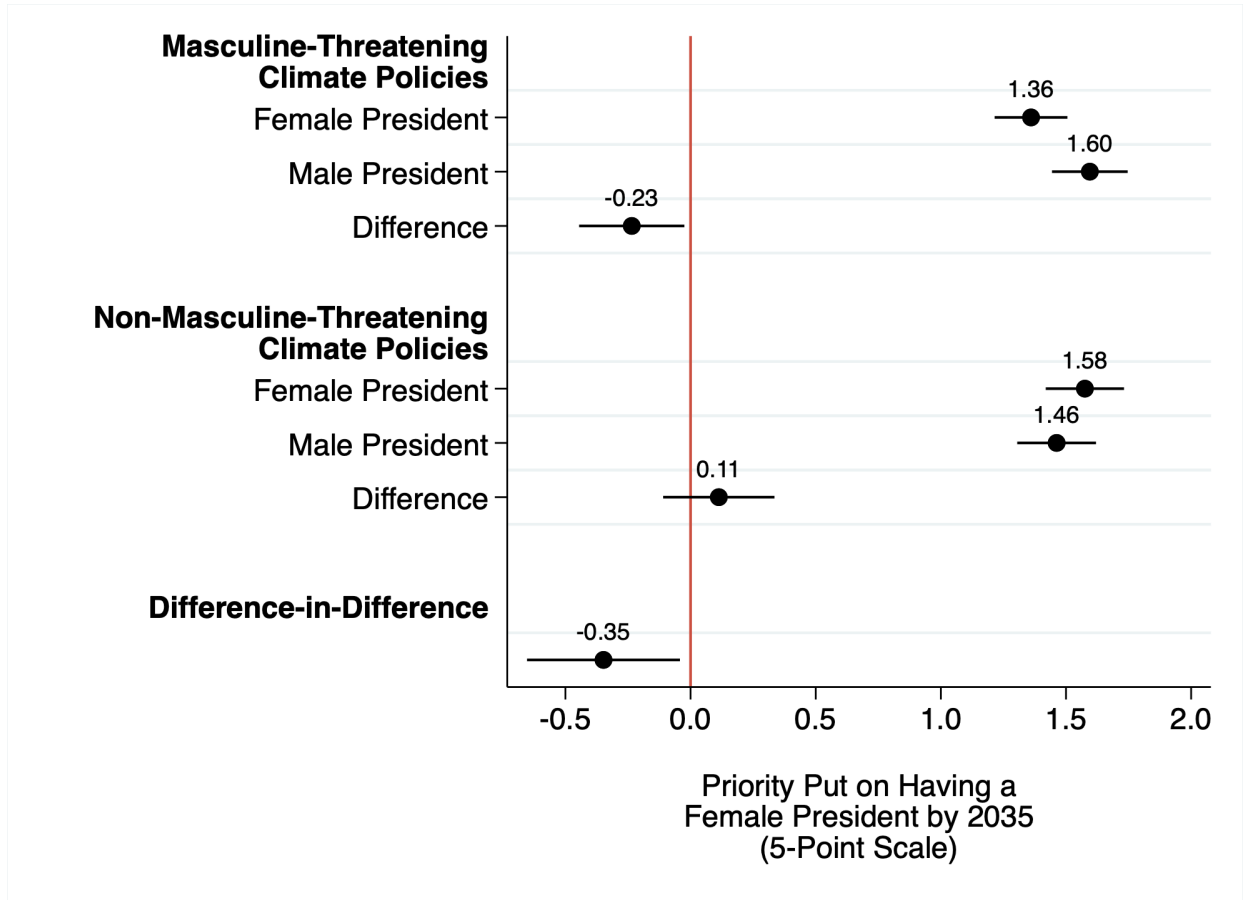
erally unpopular, they are not more unpopular when proposed by women leaders in the same way that peace proposals are more unpopular when proposed by women leaders (Blair & Schwartz 2023). Substantively, this suggests that female politicians—such as Kamala Harris—are not uniquely vulnerable to Republican criticisms about masculine-threatening climate policies relative to male politicians—such as Joe Biden. Instead, any politician who proposes these kinds of policies—man or woman—is at political risk.

With that being said, we do find evidence that masculine-threatening policies proposed specifically by female leaders have one negative consequence: they reduce the priority the American public puts on having a female president by 2035. The results are illustrated in Figure 6. The priority respondents put on having a female president by 2035 is significantly lower when female leaders propose masculine-threatening climate policies compared to when male leaders do ( $p=0.029$ ). However, respondents are actually more likely to put a higher priority on having a female president by 2035 when female presidents propose non-masculine-threatening climate policies compared to when male presidents do, though the effect is not statistically significant ( $p=0.319$ ). Thus, it is not the case that *any* type of climate policy proposed by female presidents reduces the US public’s support for a future female president. The key quantity of interest—the difference-in-difference—is negative and statistically significant, indicating that the priority put on having a female president is lower when women leaders propose masculine-threatening climate policies relative to when they push for non-masculine-threatening policies.

Why is there a significant effect of leader sex for this outcome variable but not for others, such as support for the policy itself or support for President Richards? The likely explanation is that reducing the priority put on having a female president is less punitive than actually disapproving of a female president themselves. Respondents may not feel a greater need to vote female presidents out of office if they propose masculine-threatening policies compared to when male presidents do, but they may sour, at least to some extent, on *prioritizing*



Figure 6: The Effect of Leader Sex on Female President Priority



**Note:** Bars are 95% confidence intervals.

having a female president (relative to other qualifications, not in an absolute sense) if their expectation is that it will lead to these kinds of policies. Especially since the US has not yet had a female president, the first one will likely contribute a disproportionate amount to the public's mental image of what a female presidency looks like. Much like how Margaret Thatcher set expectations in the public's mind for what future British prime ministers would be like and the kinds of policies they were likely to support.

## Conclusion

This study sheds new light on the intersection of gender and climate policy, demonstrating the significant role that gendered perceptions play in shaping public support for climate action. Our findings reveal that climate policies perceived as threatening traditional masculine norms—such as those targeting meat consumption and the use of large automobiles—are met with notably higher levels of resistance from the public. This resistance transcends respondent gender, illustrating that such policies face broad opposition across different demographic groups.

While we show the general unpopularity of masculine-threatening climate policies, we do not find that female leaders face an additional penalty when advocating for these policies compared to their male counterparts. This null finding challenges the relevance of applying the “going against type” logic in the realm of climate policy, suggesting that gendered expectations for leaders may be weaker in this policy area compared to others, such as foreign policy. While type-based logic has generated strong results on issues related to defense and national security, future work should continue to test the conditions under which this logic is more and less likely to hold.

This research provides a critical link between the literature on climate change and the growing body of work on gender in politics. It moves beyond the existing focus on how individual gender identities and sexist attitudes influence climate policy support to explore how the gendered nature of the policies themselves can drive public opinion. This novel approach opens up new avenues for research, particularly in understanding how other identity factors, such as race or socioeconomic status, might interact with gendered perceptions of climate policy, building on other recent studies on the relevance of such factors for individual climate attitudes (Benegal & Holman 2021b; Benegal et al. 2022). Furthermore, our study is situated in the American political context, which is quite unique in the historical alignment

of gender and climate attitudes with partisan identity. Future studies should explore the intersection of these factors in other contexts in which they vary more over time.

For policymakers and climate advocates, our findings offer a cautionary tale. While there is an urgent need to address climate change through comprehensive policy measures, the political feasibility of such actions may be undermined if they are perceived as attacking traditional masculine norms. As our study shows, even in the absence of actual proposals to ban meat or gasoline-powered cars, the mere suggestion of such policies can be politically damaging. By avoiding language or policy suggestions that could be construed as overly masculine-threatening, climate advocates may be able to build broader coalitions of support. For example, emphasizing the economic and health benefits of reducing meat consumption, rather than framing it as a moral imperative, might mitigate some of the backlash. Similarly, promoting electric vehicles as modern and efficient alternatives rather than as replacements for “manly” gas-guzzlers could help avoid the gendered backlash effects we document. Consequently, future works should test whether the effects we find here can be mitigated with effective policy framing and argumentation.

## References

- Adams, C. J. (1990). *The sexual politics of meat*. Bloomsbury Publishing.
- Arias, S. B., & Blair, C. W. (2024). In the Eye of the Storm: Hurricanes, Climate Migration, and Climate Attitudes. *American Political Science Review*, (pp. 1–21).
- Arias, S. B., & Schwartz, J. A. (2024). Think Globally, Act Locally: The Determinants of Local Policymakers' Support for Climate Policy.
- Aronow, P. M., Baron, J., & Pinson, L. (2019). A note on dropping experimental subjects who fail a manipulation check. *Political Analysis*, 27(4), 572–589.
- Beauregard, K., Holman, M., & Sheppard, J. (2022). Sexism and Attitudes Toward Policy Spending in Australia and the United States. *Frontiers in Political Science*, 4, 892111.
- Benegal, S., Azevedo, F., & Holman, M. R. (2022). Race, ethnicity, and support for climate policy. *Environmental Research Letters*, 17(11), 114060.
- Benegal, S., & Holman, M. R. (2021a). Understanding the importance of sexism in shaping climate denial and policy opposition. *Climatic Change*, 167(3-4), 48.
- Benegal, S. D., & Holman, M. R. (2021b). Racial prejudice, education, and views of climate change. *Social Science Quarterly*, 102(4), 1907–1919.
- Bergquist, P., Mildemberger, M., & Stokes, L. C. (2020). Combining climate, economic, and social policy builds public support for climate action in the US. *Environmental Research Letters*, 15(5), 054019.
- Berinsky, A. J., Margolis, M. F., & Sances, M. W. (2014). Separating the shirkers from the workers? Making sure respondents pay attention on self-administered surveys. *American Journal of Political Science*, 58(3), 739–753.
- Bernauer, T., & Gampfer, R. (2015). How robust is public support for unilateral climate policy? *Environmental Science & Policy*, 54, 316–330.
- Blair, C. W., & Schwartz, J. A. (2023). The Gendered Peace Premium. *International Studies Quarterly*.
- Bosson, J. K., Vandello, J. A., Burnaford, R. M., Weaver, J. R., & Arzu Wasti, S. (2009). Precarious manhood and displays of physical aggression. *Personality and social psychology bulletin*, 35(5), 623–634.
- Bush, S. S., & Clayton, A. (2023). Facing change: Gender and climate change attitudes worldwide. *American Political Science Review*, 117(2), 591–608.

- Carian, E. K., & Sobotka, T. C. (2018). Playing the Trump card: Masculinity threat and the US 2016 presidential election. *Socius*, *4*, 2378023117740699.
- Cho, H. J. (2014). Impact of IMF Programs on Perceived Creditworthiness of Emerging Market Countries: Is There a ‘Nixon-Goes-to-China’ Effect? *International Studies Quarterly*, *58*(2), 308–321.
- Clark, R., Khoban, R., & Zucker, N. (2022). Breadwinner Backlash: The Gendered Effects of Industrial Decline.
- Clifford, S., Sheagley, G., & Piston, S. (2021). Increasing precision without altering treatment effects: Repeated measures designs in survey experiments. *American Political Science Review*, *115*(3), 1048–1065.
- Cohen, D. K., & Karim, S. M. (2022). Does more equality for women mean less war? Rethinking sex and gender inequality and political violence. *International organization*, *76*(2), 414–444.
- Connell, R. W., & Messerschmidt, J. W. (2005). Hegemonic masculinity: Rethinking the concept. *Gender & society*, *19*(6), 829–859.
- Coppock, A., & McClellan, O. A. (2019). Validating the Demographic, Political, Psychological, and Experimental Results Obtained from a New Source of Online Survey Respondents. *Research & Politics*, *6*(1), 1–14.
- Cowen, T., & Sutter, D. (1998). Why only Nixon could go to China. *Public Choice*, *97*(4), 605–615.
- Craig, M. A., & Richeson, J. A. (2014). On the precipice of a “majority-minority” America: Perceived status threat from the racial demographic shift affects White Americans’ political ideology. *Psychological science*, *25*(6), 1189–1197.
- Cukierman, A., & Tommasi, M. (1998). When Does It Take a Nixon to Go to China? *American Economic Review*, *88*(1), 180–197.
- Dafoe, A., Zhang, B., & Caughey, D. (2018). Information equivalence in survey experiments. *Political Analysis*, *26*(4), 399–416.
- Daggett, C. (2018). Petro-masculinity: Fossil Fuels and Authoritarian Desire. *Millennium*, *47*(1), 25–44.
- Dahl, J., Vescio, T., & Weaver, K. (2015). How threats to masculinity sequentially cause public discomfort, anger, and ideological dominance over women. *Social Psychology*.
- Dans, P., & Groves, S. (2023). *Mandate for Conservative Leadership: The Conservative Promise*. Washington, DC: The Heritage Foundation.

- Drews, S., & van den Bergh, J. C. (2016). What Explains Public Support for Climate Policies? A Review of Empirical and Experimental Studies. *Climate Policy*, 16(7), 855–876.
- Ducat, S. (2005). *The wimp factor: Gender gaps, holy wars, and the politics of anxious masculinity*. Beacon Press.
- Eagly, A. H., & Wood, W. (1999). The origins of sex differences in human behavior: Evolved dispositions versus social roles. *American psychologist*, 54(6), 408.
- Egan, P. J., & Mullin, M. (2017). Climate Change: US Public Opinion. *Annual Review of Political Science*, 20, 209–227.
- Funke, F., Mattauch, L., Bijgaart, I. v. d., Godfray, H. C. J., Hepburn, C., Klenert, D., Springmann, M., & Treich, N. (2022). Toward optimal meat pricing: Is it time to tax meat consumption? *Review of Environmental Economics and Policy*, 16(2), 219–240.
- Geary, D. C. (1998). *Male, female: The evolution of human sex differences*. American Psychological Association Washington, DC.
- Glick, P., & Fiske, S. T. (1997). Hostile and benevolent sexism: Measuring ambivalent sexist attitudes toward women. *Psychology of women quarterly*, 21(1), 119–135.
- Hazlett, C., & Mildemberger, M. (2020). Wildfire exposure increases pro-environment voting within democratic but not republican areas. *American Political Science Review*, 114(4), 1359–1365.
- Hornsey, M. J., Harris, E. A., Bain, P. G., & Fielding, K. S. (2016). Meta-analyses of the determinants and outcomes of belief in climate change. *Nature Climate Change*, 6(6), 622–626.
- Hutter, R. R., & Crisp, R. J. (2005). The composition of category conjunctions. *Personality and Social Psychology Bulletin*, 31(5), 647–657.
- Jakupcak, M., Tull, M. T., & Roemer, L. (2005). Masculinity, Shame, and Fear of Emotions as Predictors of Men’s Expressions of Anger and Hostility. *Psychology of Men & Masculinity*, 6(4), 275.
- Kahan, D. M., Braman, D., Gastil, J., Slovic, P., & Mertz, C. (2007). Culture and identity-protective cognition: Explaining the white-male effect in risk perception. *Journal of Empirical Legal Studies*, 4(3), 465–505.
- Kaul, N., & Buchanan, T. (2023). Misogyny, authoritarianism, and climate change. *Analyses of Social Issues and Public Policy*, 23(2), 308–333.
- Klenert, D., Funke, F., & Cai, M. (2023). Meat taxes in Europe can be designed to avoid overburdening low-income consumers. *Nature Food*, 4(10), 894–901.

- Kreps, S. E., Saunders, E. N., & Schultz, K. A. (2018). The Ratification Premium: Hawks, Doves, and Arms Control. *World Politics*, *70*(4), 479–514.
- Kunda, Z., Miller, D. T., & Claire, T. (1990). Combining social concepts: The role of causal reasoning. *Cognitive Science*, *14*(4), 551–577.
- Landström, C. (2006). A gendered economy of pleasure: Representations of cars and humans in motoring magazines. *Science & Technology Studies*, *19*(2), 26–48.
- Leiserowitz, A. (2006). Climate Change Risk Perception and Policy Preferences: The Role of Affect, Imagery, and Values. *Climatic Change*, *77*(1-2), 45–72.
- Levant, R. F., Martin-Fernandez, J., McDermott, R. C., & Thompson Jr, E. H. (2022). Measurement invariance and comparison of mean scores by age cohort of two versions of the male role norms inventory. *Men and Masculinities*, *25*(3), 438–458.
- Lewis, G. B., Palm, R., & Feng, B. (2019). Cross-national variation in determinants of climate change concern. *Environmental Politics*, *28*(5), 793–821.
- Lovenduski, J. (1998). Gendering research in political science. *Annual review of political science*, *1*(1), 333–356.
- Mattes, M., & Weeks, J. L. (2019). Hawks, Doves, and Peace: An Experimental Approach. *American Journal of Political Science*, *63*(1), 53–66.
- McCright, A. M. (2010). The effects of gender on climate change knowledge and concern in the American public. *Population and environment*, *32*, 66–87.
- McCright, A. M., & Dunlap, R. E. (2011). The Politicization of Climate Change and Polarization in the American Public’s Views of Global Warming, 2001–2010. *Sociological Quarterly*, *52*(2), 155–194.
- McDermott, R. C., Borgogna, N. C., Hammer, J. H., Berry, A. T., & Levant, R. F. (2020). More similar than different? Testing the construct validity of men’s and women’s traditional masculinity ideology using the Male Role Norms Inventory-Very Brief. *Psychology of Men & Masculinities*, *21*(4), 523.
- McDermott, R. C., Levant, R. F., Hammer, J. H., Borgogna, N. C., & McKelvey, D. K. (2019). Development and validation of a five-item Male Role Norms Inventory using bifactor modeling. *Psychology of Men & Masculinities*, *20*(4), 467.
- Mildenberger, M., & Tingley, D. (2019). Beliefs about climate beliefs: the importance of second-order opinions for climate politics. *British Journal of Political Science*, *49*(4), 1279–1307.
- Nincic, M. (1988). The United States, the Soviet Union, and the Politics of Opposites. *World Politics*, *40*(4), 452–475.

- Pechey, R., Reynolds, J. P., Cook, B., Marteau, T. M., & Jebb, S. A. (2022). Acceptability of policies to reduce consumption of red and processed meat: A population-based survey experiment. *Journal of Environmental Psychology, 81*, 101817.
- Peyton, K., Huber, G. A., & Coppock, A. (2021). The Generalizability of Online Experiments Conducted During The COVID-19 Pandemic. *Journal of Experimental Political Science*.
- Plananska, J., Wüstenhagen, R., & de Bellis, E. (2023). Perceived lack of masculinity as a barrier to adoption of electric cars? An empirical investigation of gender associations with low-carbon vehicles. *Travel behaviour and society, 32*, 100593.
- Prati, F., Crisp, R. J., & Rubini, M. (2015). Counter-stereotypes reduce emotional intergroup bias by eliciting surprise in the face of unexpected category combinations. *Journal of Experimental Social Psychology, 61*, 31–43.
- Rivera-Rodriguez, A., Larsen, G., & Dasgupta, N. (2022). Changing public opinion about gender activates group threat and opposition to feminist social movements among men. *Group Processes & Intergroup Relations, 25*(3), 811–829.
- Rothgerber, H. (2013). Real men don't eat (vegetable) quiche: Masculinity and the justification of meat consumption. *Psychology of Men & Masculinity, 14*(4), 363.
- Rozin, P., Hormes, J. M., Faith, M. S., & Wansink, B. (2012). Is meat male? A quantitative multimethod framework to establish metaphoric relationships. *Journal of Consumer Research, 39*(3), 629–643.
- Rudman, L. A., & Glick, P. (2010). *The social psychology of gender: How power and intimacy shape gender relations*. Guilford Publications.
- Saunders, E. N. (2018). Leaders, Advisers, and the Political Origins of Elite Support for War. *Journal of Conflict Resolution, 62*(10), 2118–2149.
- Schaffner, B. F. (2022). Optimizing the measurement of sexism in political surveys. *Political Analysis, 30*(3), 364–380.
- Schwartz, J. A., & Blair, C. W. (2020). Do women make more credible threats? Gender stereotypes, audience costs, and crisis bargaining. *International Organization, 74*(4), 872–895.
- Sjoberg, L., & Thies, C. G. (2023). Gender and international relations. *Annual Review of Political Science, 26*(1), 451–467.
- Swim, J. K., Gillis, A., & Hamaty, K. J. (2020). Gender bending and gender conformity: The social consequences of engaging in feminine and masculine pro-environmental behaviors. *Sex Roles, 82*(5), 363–385.



- Tranter, B., & Booth, K. (2015). Scepticism in a changing climate: A cross-national study. *Global Environmental Change*, *33*, 154–164.
- Van Dyke, N., & Soule, S. A. (2002). Structural social change and the mobilizing effect of threat: Explaining levels of patriot and militia organizing in the United States. *Social Problems*, *49*(4), 497–520.
- Vandello, J. A., Bosson, J. K., Cohen, D., Burnaford, R. M., & Weaver, J. R. (2008). Precarious manhood. *Journal of personality and social psychology*, *95*(6), 1325.
- Willer, R., Rogalin, C. L., Conlon, B., & Wojnowicz, M. T. (2013). Overdoing gender: A test of the masculine overcompensation thesis. *American journal of sociology*, *118*(4), 980–1022.

# Beyond Meeting Climate Goals Supplementary Information

## Contents

A Questionnaire

SI-1

# A Questionnaire

## Introduction

Thank for taking part in this study. You may stop at any time. First, we would like to ask you a few questions about yourself.

## Demographic Questions

1. With what gender do you most closely identify?
  - (a) Male
  - (b) Female
  - (c) Other/Prefer not to say
2. Generally speaking, I think of myself as a:
  - (a) Democrat
  - (b) Republican
  - (c) Independent
3. *If Democrat selected:* Would you call yourself a strong Democrat, or a not very strong Democrat?
  - (a) Strong Democrat
  - (b) Not very strong Democrat
4. *If Republican selected:* Would you call yourself a strong Republican, or a not very strong Republican?
  - (a) Strong Republican
  - (b) Not very strong Republican
5. *If Independent selected:* Do you think of yourself as closer to the Democratic Party or the Republican Party?
  - (a) Closer to the Democratic Party
  - (b) Closer to the Republican Party
6. In general, I think of myself as:
  - (a) Extremely liberal
  - (b) Liberal

- (c) Slightly liberal
  - (d) Moderate, middle of the road
  - (e) Slightly conservative
  - (f) Conservative
  - (g) Extremely conservative
7. How often do you attend religious services?
- (a) More than once a week
  - (b) Once a week
  - (c) A few times a month
  - (d) A few times a year
  - (e) Once a year or less
  - (f) Never
8. Would you describe yourself as a born-again or evangelical Christian, or not?
- (a) Yes
  - (b) No
  - (c) Other/prefer not to answer
9. Which of these options best describes your situation (in the last seven days)?
- (a) Employed full time
  - (b) Employed part time
  - (c) Unemployed
  - (d) Student
  - (e) Retired
  - (f) Homemaker
  - (g) Self-employed
10. What is the highest level of education that you have completed?
- (a) Elementary or some high school
  - (b) High school graduate/GED
  - (c) Trade or vocational certification
  - (d) Some college/Associate's degree
  - (e) College graduate

- (f) Post-graduate degree
11. What was your total household income before taxes during the past 12 months?
- (a) Less than \$25,000
  - (b) \$25,000-\$49,999
  - (c) \$50,000-\$74,999
  - (d) \$75,000-\$99,999
  - (e) \$100,000-\$149,999
  - (f) \$150,000 or more
  - (g) Prefer not to say
12. Choose one or more races that you consider yourself to be.
- (a) White or Caucasian
  - (b) Black or African American
  - (c) American Indian/Native American or Alaska Native
  - (d) Asian
  - (e) Native Hawaiian or Other Pacific Islander
  - (f) Other
  - (g) Prefer not to say
13. Are you of Spanish, Hispanic, or Latino origin?
- (a) Yes
  - (b) No
  - (c) Prefer not to say
14. How old are you?
15. How much of the time do you think you can trust the government in Washington to do what is right?
- (a) Just about always
  - (b) Most of the time
  - (c) Only some of the time
16. Would you say you follow what's going on in government and public affairs:
- (a) Most of the time
  - (b) Some of the time

- (c) Only now and then
  - (d) Hardly at all
17. Based on the evidence you have read and heard, what can you reasonably conclude about climate change?
- (a) The climate is changing, and human activity plays a significant role
  - (b) The climate is changing, and human activity may play a significant role
  - (c) The climate is changing, and human activity does not play a significant role
  - (d) The climate is not changing
  - (e) Don't know / Unsure
18. In the recent past, has your local community been impacted by any of the following weather events? Select all that apply.
- (a) Floods
  - (b) Hurricanes
  - (c) Wildfires
  - (d) Droughts
  - (e) Heatwaves
  - (f) None of the above
19. Which, if any, of the following industries are important to your community's economy? Select all that apply.
- (a) Oil, gas, or coal
  - (b) Green industry (e.g., green technology, solar/wind/geothermal energy)
  - (c) Automotive
  - (d) None of the above
20. Do you believe that climate change policies would help or hurt your personal economic situation?
- (a) Hurt a lot
  - (b) Hurt a little
  - (c) Neither help nor hurt
  - (d) Help a little
  - (e) Help a lot
21. Do any of the following statements apply to you? Select as many as possible.

- (a) I drive an electric car
  - (b) I drive a hybrid or plug-in car
  - (c) I am a vegetarian or vegan
  - (d) I use public transportation as my main transportation source
  - (e) None of the above
22. We would like to get a sense of your general preferences. Most modern theories of decision making recognize that decisions do not take place in a vacuum. Individual preferences and knowledge, along with situational variables, can greatly impact the decision process. To demonstrate that you've read this much, just go ahead and select both red and green among the alternatives below, no matter what your favorite color is. Yes, ignore the question below and select both of these options. What is your favorite color?
- (a) White
  - (b) Black
  - (c) Red
  - (d) Pink
  - (e) Green
  - (f) Blue
23. How much do you agree or disagree with the following statements? *For each item, respondent selects: Strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree.*
- (a) Women seek to gain power by getting control over men
  - (b) Women exaggerate the problems they have at work
  - (c) Once a women gets a man to commit, she puts him on a tight leash
  - (d) When women demand equality these days, they are actually seeking special favor
  - (e) The media **does not** pay enough attention to discrimination against women
  - (f) Society has reached the point where women and men have equal opportunities for achievement
24. On the next page, you will read about a hypothetical scenario set in 2030. Please read the scenario carefully because you will be asked questions to check your attention and comprehension. Do you agree to read the details very carefully, and then give your most thoughtful answers?
- (a) Yes, I agree to read the details carefully
  - (b) No, I don't agree to read the details carefully

## Policy Questions

Imagine the year is 2030. The U.S. President in 2030 is [Stephen/Stephanie/Eric/Erica] Richards, who is a lifelong Democrat. President Richards is very concerned about climate change and so [Stephen/Stephanie/Eric/Erica] has proposed the following policies. Please read the following policies carefully and indicate to what extent you support or oppose them:

1. (*Meat-Gendered*): Meat production contributes significantly to climate change in many ways. For example, cows emit methane when they burp, and methane is a potent greenhouse gas that warms the environment. Therefore, President [Stephen/Stephanie/Eric/Erica] Richards is proposing a policy that would tax meat consumption in order to discourage people from eating as much meat. The expected cost is \$250 per year per person, and the policy is expected to reduce greenhouse gas emissions by 3%. To what extent would you support or oppose this policy?
  - (a) Strongly support
  - (b) Somewhat support
  - (c) Neither support nor oppose
  - (d) Somewhat oppose
  - (e) Strongly oppose
  
2. (*Meat-Gendered*): Meat production contributes significantly to climate change in many ways. For example, cows emit methane when they burp, and methane is a potent greenhouse gas that warms the environment. Therefore, President [Stephen/Stephanie/Eric/Erica] Richards is proposing a policy that would give farmers tax breaks if they switched from producing meat to growing vegetables. The expected loss in government revenue is \$5 billion per year, and the policy is expected to reduce greenhouse gas emissions by 3%. To what extent would you support or oppose this policy?
  - (a) Strongly support
  - (b) Somewhat support
  - (c) Neither support nor oppose
  - (d) Somewhat oppose
  - (e) Strongly oppose
  
3. (*Meat-Not-Gendered*): President [Stephen/Stephanie/Eric/Erica] Richards is proposing a policy that would tax carbon, which is a potent greenhouse gas that warms the environment. This means that products whose use or manufacturing process contributes to climate change will be taxed. The expected cost is \$250 per year per person, and the policy is expected to reduce greenhouse gas emissions by 3%. To what extent would you support or oppose this policy?
  - (a) Strongly support



- (b) Somewhat support
  - (c) Neither support nor oppose
  - (d) Somewhat oppose
  - (e) Strongly oppose
4. (*Meat-Not-Gendered*): President [*Stephen/Stephanie/Eric/Erica*] Richards is proposing a policy that would give farmers tax breaks if they adopted policies that reduce climate change. The expected loss in government revenue is \$5 billion per year, and the policy is expected to reduce greenhouse gas emissions by 3%. To what extent would you support or oppose this policy?
- (a) Strongly support
  - (b) Somewhat support
  - (c) Neither support nor oppose
  - (d) Somewhat oppose
  - (e) Strongly oppose
5. (*Car-Gendered*): In order to reduce emissions from cars, President [*Stephen/Stephanie/Eric/Erica*] Richards is proposing that the sale of all gasoline-powered cars be banned by 2035. Instead, people will have to buy electric-powered cars. The expected cost is \$7500 per person, and the policy is expected to reduce overall US greenhouse gas emissions in the long-term by 6%. To what extent would you support or oppose this policy?
- (a) Strongly support
  - (b) Somewhat support
  - (c) Neither support nor oppose
  - (d) Somewhat oppose
  - (e) Strongly oppose
6. (*Car-Gendered*): In order to reduce emissions from cars, President [*Stephen/Stephanie/Eric/Erica*] Richards is proposing that the sale of all non-commercial trucks and SUVs be banned by 2035. Instead, people will have to buy smaller, more fuel-efficient sedans. The policy is expected to reduce greenhouse gas emissions in the long-term by 6%. To what extent would you support or oppose this policy?
- (a) Strongly support
  - (b) Somewhat support
  - (c) Neither support nor oppose
  - (d) Somewhat oppose
  - (e) Strongly oppose

7. (*Car-Not-Gendered*): In order to reduce emissions from homes, President [*Stephen/Stephanie/Eric/Erica*] Richards is proposing that the sale of all gas-powered heat furnaces be banned by 2035. Instead, people will have to buy electric heating systems. Instead, people will have to buy electric-powered heaters. The expected cost is \$7500 per person, and the policy is expected to reduce overall US greenhouse gas emissions in the long-term by 6%. To what extent would you support or oppose this policy?
- (a) Strongly support
  - (b) Somewhat support
  - (c) Neither support nor oppose
  - (d) Somewhat oppose
  - (e) Strongly oppose
8. (*Car-Not-Gendered*): In order to reduce emissions from the production of plastics, President [*Stephen/Stephanie/Eric/Erica*] Richards is proposing that the sale of thick plastic bottles and containers be banned by 2035. Instead, people will have to buy bottles and containers that use less plastic and thus are less thick. The policy is expected to reduce greenhouse gas emissions in the long-term by 6%. To what extent would you support or oppose this policy?
- (a) Strongly support
  - (b) Somewhat support
  - (c) Neither support nor oppose
  - (d) Somewhat oppose
  - (e) Strongly oppose
9. (*Defense-Gendered*): Given its size, the US military contributes significantly to climate change. Therefore, President [*Stephen/Stephanie/Eric/Erica*] Richards is directing the US military to take tangible steps to use more clean sources of energy to power their bases and vehicles. The policy is expected to save about \$5 billion per year in reduced energy costs, and the policy is expected to reduce US greenhouse gas emissions by 6%, the equivalent of approximately 360 million metric tons of greenhouse gas emissions. To what extent would you support or oppose this policy?
- (a) Strongly support
  - (b) Somewhat support
  - (c) Neither support nor oppose
  - (d) Somewhat oppose
  - (e) Strongly oppose

10. (*Defense-Gendered*): President [*Stephen/Stephanie/Eric/Erica*] Richards is directing the US military to develop an environmental justice plan that will outline how the military can minimize adverse environmental impacts on disadvantaged communities as a result of US military activities. (Environmental justice is the fair treatment and meaningful involvement of all people with respect to the development, implementation and enforcement of environmental laws, regulations and policies.) To what extent would you support or oppose this policy?
- (a) Strongly support
  - (b) Somewhat support
  - (c) Neither support nor oppose
  - (d) Somewhat oppose
  - (e) Strongly oppose
11. (*Defense-Not-Gendered*): Given its size, the US government contributes significantly to climate change. Therefore, President [*Stephen/Stephanie/Eric/Erica*] Richards is directing the US government to take tangible steps to use more clean sources of energy to power their offices and vehicles. The policy is expected to save about \$5 billion per year in reduced energy costs, and the policy is expected to reduce US greenhouse gas emissions by 6%, the equivalent of approximately 360 million metric tons of greenhouse gas emissions. To what extent would you support or oppose this policy?
- (a) Strongly support
  - (b) Somewhat support
  - (c) Neither support nor oppose
  - (d) Somewhat oppose
  - (e) Strongly oppose
12. (*Defense-Not-Gendered*): President [*Stephen/Stephanie/Eric/Erica*] Richards is directing the US government to develop an environmental justice plan that will outline how the government can minimize adverse environmental impacts on disadvantaged communities as a result of US government activities. (Environmental justice is the fair treatment and meaningful involvement of all people with respect to the development, implementation and enforcement of environmental laws, regulations and policies.) To what extent would you support or oppose this policy?
- (a) Strongly support
  - (b) Somewhat support
  - (c) Neither support nor oppose
  - (d) Somewhat oppose

- (e) Strongly oppose

### General Outcome Measures

1. What was gender of the president in the article you read about?
  - (a) Female
  - (b) Male
  - (c) Other
  - (d) Not mentioned
2. How much do you support or oppose President [*Stephen/Stephanie/Eric/Erica*] Richards?
  - (a) Strongly support
  - (b) Somewhat support
  - (c) Neither support nor oppose
  - (d) Somewhat oppose
  - (e) Strongly oppose
3. How likely would you be to vote for President [*Stephen/Stephanie/Eric/Erica*] Richards in a future election?
  - (a) Extremely likely
  - (b) Somewhat likely
  - (c) Neither likely nor unlikely
  - (d) Somewhat unlikely
  - (e) Extremely unlikely
4. How likely would you be to donate to President [*Stephen/Stephanie/Eric/Erica*] Richards' campaign in a future election?
  - (a) Extremely likely
  - (b) Somewhat likely
  - (c) Neither likely nor unlikely
  - (d) Somewhat unlikely
  - (e) Extremely unlikely
5. How much of a priority do you believe it should be to have a female president in the US by 2035?
  - (a) Not a priority at all

- (b) Slight priority
  - (c) Medium level priority
  - (d) Fairly high priority
  - (e) Top priority
6. How much of a policy priority do you believe the following areas should be to the United States? Response on a 5 point scale: Not a priority at all, Slight priority, Medium level priority, Fairly high priority, Top priority.
- (a) Reducing racial injustice
  - (b) Protecting LGBTQ rights
  - (c) Strengthening the nation's economy
  - (d) Strengthening the U.S. military
  - (e) Addressing climate change
  - (f) Improving infrastructure
7. Please indicate how much you agree or disagree with each of the following statements about climate change, a change in climate patterns, including extreme weather events. Response on a 5 point scale: Definitely disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Definitely agree.
- (a) Climate change is not a serious problem.
  - (b) Climate change will have a serious impact during my lifetime.
  - (c) I would vote for a politician who promised to take action to reduce climate change.
  - (d) I would personally support a tax increase to fund national programs to reduce climate change.
  - (e) The U.S. should not do more to reduce climate change.
  - (f) The international community should do more to reduce climate change.
8. If you would like more information about ways that you can increase your sustainability and reduce the potential impacts of climate change and climate-driven migration, please click the link below. This is completely optional, and in no way affects your participation in the survey. [6 ways ordinary people can prevent climate change, according to researchers and advocates](#)
9. In 1-5 sentences, please explain how you feel about President Richards.