

Exposure to Climate Policy Costs and Public Backlash: Evidence from Germany*

Niklas Kramer^{†1,2}, Théo Konc^{1,3}, and Jan Christoph Steckel^{1,4}

¹Potsdam Institute for Climate Impact Research, Germany

²Otto Suhr Institute of Political Science, Freie Universität Berlin, Germany

³Wageningen University & Research, Netherlands

⁴School of Social Science and Technology, Technical University of Munich, Germany

August 20, 2026

Abstract

Previous research has shown that people often punish their government for climate policy when they are directly affected. Is this electoral backlash driven by a lasting shift in political attitudes? We hypothesize that people who expect economic losses from policy change revoke their support for similar policies and lose trust in political institutions deemed responsible. We test this claim for the case of Germany using a difference-in-differences design. In 2023, the government proposed an installation ban for fossil-based heating systems, which triggered a contentious public debate. Drawing on survey panel data collected before, during, and after the debate, we find that disproportionate exposure to the predicted costs of the policy had no effect on support for other climate policies. However, it caused a significant decline in willingness to pay for further climate policy and a loss of trust in government. These effects persisted even after the ban was postponed.

Keywords: Public backlash, climate policy, public opinion, political trust

*We thank the audiences at Freie Universität Berlin, Hertie School, the Potsdam Institute for Climate Impact Research, the Environmental Politics and Governance Seminar Series, the Heating Transition Workshop of the German Association for Political Science, the 2026 Nordic Environmental Social Science Conference, and the 2025 RIFS Conference for helpful comments and thoughtful discussions. The authors acknowledge funding from the German Federal Ministry for Economic Cooperation and Development through the TRANSFORM project for data collection. JCS acknowledges funding from the Werner Siemens Foundation through the CERES project.

[†]Corresponding author: niklas.kramer@fu-berlin.de

1 Introduction

Around the world, an overwhelming majority of people support climate change mitigation (Andre et al. 2024; Dechezleprêtre et al. 2025). Nevertheless, the green transition has turned out to be an enormous political challenge. Many attempts to implement stringent climate policies have triggered public backlash (Bosetti et al. 2025). Much-noticed cases of such backlash include the Yellow Vests protests that were triggered by an increase in fuel taxes (2018) and the European farmers' protests that sparked in response to the European Commission's plans to remove fossil fuel subsidies and introduce environmental regulation in agriculture (2024). Even without mass protests, people often punish their government for adopting climate policies when they are directly affected or fear being affected (Colantone et al. 2024; Heddesheimer, Hilbig, and Voeten 2026; Stokes 2016; Voeten 2025). Is this form of electoral punishment driven by a lasting change in political attitudes?

Previous research has shown that policy change affects public opinion, particularly if costs or benefits are involved (Campbell 2012; Erikson and Stoker 2011; Soss and Schram 2007). We therefore hypothesize that exposure to the costs of a new climate policy undermines support for comparable policies and political institutions deemed responsible. The case of the Yellow Vest protests illustrates that public backlash often already occurs before these costs materialize if the policy change and its projected consequences are sufficiently salient (Patashnik 2023; Patterson et al. 2025).

We test these claims for the case of Germany. In 2023, the federal government proposed a reform of the Buildings Energy Act (GEG), which provoked a contentious public debate after a draft bill was leaked to BILD, the largest German tabloid newspaper. The initial reform proposal foresaw prohibiting the installation of new fossil-based heating systems by January 2024. This would have imposed high upfront costs on homeowners who rely on exhausted oil or gas boilers, as renewable alternatives, mostly heat pumps, tend to be more expensive than fossil alternatives and can require additional investments in the building stock to be effective. After heavy pushback, the provisions were relaxed and the ban on new oil and gas boilers postponed. Hence, the policy that was adopted in September 2023 and came into effect in January 2024 did not impose the expected costs. However, it still caused an electoral backlash in the subsequent state elections (Kistinger et al. 2026). The new government, which entered office in 2025, further weakened the reform and effectively dismantled the ban on new fossil-fuel heating systems. Tracing the media debate, we show that the planned policy changes were highly visible to the public, and issues of policy design and costs were particularly salient. Thus, we assume that losses were anticipated in early 2023 by those exposed to the predicted costs of the policy.

To estimate the effect of anticipated cost exposure on public attitudes, we use survey panel data collected in four waves between January 2023 and March 2024. Applying a difference-in-difference (DiD) design, we exploit the BILD leak, which occurred between waves one and two, as an intervention. We show that the leak sparked the public debate in which people received information and party cues about the policy and its predicted consequences. We use the specific design of the policy to define credible treatment and control groups. We consider homeowners who rely on fossil fuels for heating as treated, since they were expected to bear the majority of the costs. The control group consists of people who rent their dwelling or use electric heating, as they did not have to anticipate any major costs due to the policy proposal.

We find that the anticipation of costs caused a significant decline in willingness to pay for climate policy and a loss of trust in government. These effects are particularly pronounced among supporters of left-wing parties and individuals in low- and middle-income households. Although the bill was watered down before it was put into law, the effects persisted. At the same time, we find no effect on support for other climate policies. In sum, these findings indicate that backlash to climate policy by those economically affected is associated with a decline in willingness to pay for further climate policy and a loss of trust in government, which cannot easily be regained.

The paper makes two main contributions to the literature. First, it contributes to the literature on the political consequences of climate policies, in particular policies that mandate the phase-out of fossil fuels. Previous studies have shown that voters often punish incumbents, especially green parties, for climate policies that impose costs upon them and reward the radical right for mobilizing against such policies (Colantone et al. 2024; Egli, Schmid, and Schmidt 2022; Heddesheimer, Hilbig, and Voeten 2026; Kistingner et al. 2026; Voeten 2025). Our results suggest that people do not just change their voting behavior but also lose trust in government and become less likely to accept further costs from climate policy.

The paper also contributes to the literature on public support for climate policy. Previous research in this field has broadly speaking engaged with three groups of determinants. One strand of literature has analyzed the role of individual-level characteristics, including gender (Bush and Clayton 2023), occupation (González-Rostani, Beiser-McGrath, and Aklin 2026), and ideology (Berkebile-Weinberg et al. 2024; Hornsey, Harris, and Fielding 2018). A second group of studies has assessed the effect of policy design (Dechezleprêtre et al. 2025; Gaikwad, Genovese, and Tingley 2022; Tallent, Jan, and Sattelmayer 2026) and information treatments (Beiser-Mcgrath and Busemeyer 2024; Hsiao and Kuipers 2026; Rhein and Bernauer 2026). Finally, a third group has studied the role of context factors, including me-

dia coverage and partisan cues (Bürgisser, Stadelmann-Steffen, and Armingeon 2026; Merkley and Stecula 2021), energy prices (Hernandez Carballo and Sisco 2024; Sommer, Konc, and Drews 2026), and extreme weather events (Arias and Blair 2024; Egan and Mullin 2012). While these studies have greatly advanced our understanding of the public’s opinion about climate policy, they have left the question of how real-world policy changes affect these opinions largely unexplored. Treatment effects in experimental settings can differ greatly from those in real-world settings (Fenger 2026). Our findings show that people adjust their attitudes dynamically when they are affected by climate policy changes.

The paper proceeds as follows. In Section 2, we review the literature on public responses to policy change, with a focus on climate policy. Section 3 presents the case of the German heating reform. In Section 4, we introduce the survey data and lay out our empirical strategy. We further describe the variables used and outline expected outcomes. The results are presented in Section 5. We test the robustness of these results in Section 6. Finally, we discuss the implications of our findings and draw conclusions in Section 7.

2 Public Responses to Policy Change

Policy changes can affect public opinion when they generate “focusing events” during which the salience of certain social, political, or economic dynamics is elevated (Pierson 1993). In the face of such an event, the public might reassess its party preferences, its preferences for future policies of a similar kind, and its attitudes towards political institutions. These responses are conditioned upon the public visibility of policy changes and their consequences, real or expected (Soss and Schram 2007). Depending on the type of policy change and the political context, we expect different response patterns.

In accordance with the thermostatic model of public opinion, we assume that the public holds a median preference for a certain level of policy activity in a particular issue area and that it responds dynamically to policy changes (Soroka and Wlezien 2010; Wlezien 1995). This implies that the introduction of a new climate policy depresses the mood for further government action in this area. This model of public support can explain relative opinion shifts, meaning swings in the median support for more or less government action in response to related policy changes (Atkinson et al. 2021). However, it does not help to understand why some people react more strongly than others and why absolute measures of opinion might also be affected by policy change. To make sense of these more profound response patterns, we need to consider the distributional implications of climate policy.

Most climate policies have some distributional consequences, which means they create winners and losers (Missbach and Steckel 2026). Research on policy feedback has shown that tangible exposure to the benefits or costs of policy can motivate an adjustment of attitudes towards these policies and the political institutions involved (Soss and Schram 2007). Exposure to the costs or benefits of policy can activate self-interest and the perception of unfair treatment, thereby affecting the willingness to support and pay for similar policies in the future (Campbell 2012; Jacobs and Mettler 2018). Even if policy preferences are rather determined by ideological factors, self-interest can become engaged "when the personal consequences of government policies become clear and concrete" (Erikson and Stoker 2011, 236). Hence, self-interest is activated whenever people realize that a policy will have a concrete impact on their life (Chong, Citrin, and Conley 2001). This realization can either happen when gains or losses are experienced or when people receive information about the predicted costs or benefits of policy. People have been shown to update their opinions when receiving new information about policies and their consequences (Boudreau and MacKenzie 2014; Fenger 2026; Jerit 2009). This information is primarily received through media (Barnes and Hicks 2018; Bartels 1993).

Partisanship and ideology may moderate public responses to policy change. As elites provide cues to influence the public's judgment of a new policy, partisanship serves as a "framing device" (Jacobs and Mettler 2018, 347) that affects how individuals reinterpret their political attitudes and preferences in reaction to policy change. Since individuals are most likely to take cues from trusted like-minded sources, they are likely to follow the judgment of the party they support in instances of policy change (Gilens and Murakawa 2002). Especially when elite polarization is high, party cues interact with and potentially override substantive information in forming public opinion (Boudreau and MacKenzie 2014; Druckman, Peterson, and Slothuus 2013). Hence, when individuals who receive information about their disproportionate exposure to the costs of a new climate policy support a party whose leaders prominently argue that the policy is fair, we assume that these individuals are more likely to accept the policy change without withdrawing support for climate action than individuals who favor a party that cues its supporters in the opposite direction.

Moreover, the ability to absorb the costs imposed by climate policy is unequally distributed (Chancel et al. 2025). Low-income households are more vulnerable to stringent climate policies than high-income households, since the share of energy expenditures in their budgets is higher and their savings rates are lower, which means their capacity to adapt to rising energy prices or make large investments in new technology is lower (Kröger et al. 2023). Since income level has been shown to moderate electoral backlash to climate policies (Egli, Schmid, and Schmidt 2022), we expect that the ability to pay moderates public opinion shifts as well.

3 The Case of the German Heating Reform

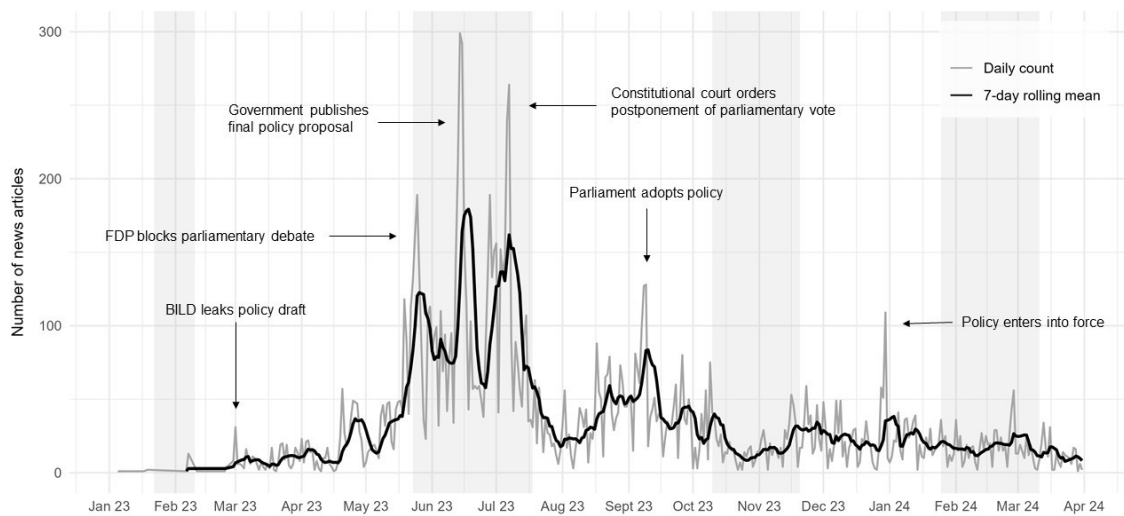
The decarbonization of the buildings sector, which generates around 15 percent of Germany's GHG emissions, is central to achieving the country's climate targets. Heating represents the largest share of household energy consumption, and more than 70 percent of German households still relied on oil and gas for heating when the GEG reform was proposed (Statistisches Bundesamt 2024). The GEG, which was adopted in 2020, regulated the use of energy in the building sector. Even though it did not contain any renewable energy provisions for heating in its original form, it already foresaw that such measures would be implemented by 2026 (BMWE 2019).

In November 2021, the so-called 'traffic light' coalition between social democrats (SPD), greens (Bündnis 90/Die Grünen), and liberals (FDP) agreed on a reform of the GEG in their coalition agreement. They agreed that by January 1, 2025, every newly installed heating system must be operated on the basis of 65 percent renewable energy (SPD, GRÜNE, and FDP 2021). This would have effectively constituted an installation ban for oil and gas heating systems. In the context of the energy crisis, which caused a substantial spike in gas prices, the coalition decided to prepone the ban by one year to reduce the country's dependency on Russian gas (BMWK 2022b). Drafting the bill fell under the co-responsibility of the Greens-led Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Ministry for Housing, Urban Development and Building (BMWSB), which was run by the social democrats.

Although the government's plans to revise the GEG were public, it did not attract considerable attention until a draft bill was leaked by BILD, the largest German tabloid newspaper, in late February 2023 (see Figure 1). BILD heavily politicized the policy in its coverage, framing the reform as an outright ban, not just for installation, but also for the use of oil and gas heating systems in general (Loschke et al. 2026). The coverage also did not reflect that the bill was still at an early stage of development and that an agreement on household subsidies for replacing fossil fuel-based heating systems was planned but had yet to be struck. The leak caused contentious debates in media and politics, in which the reform was heavily scrutinized. Particularly in the beginning, the media debate still focused on regulatory and financial consequences of the planned reform (see Figure 2).

However, opponents strategically exploited the uncertainties around the policy's consequences and costs in this early stage of the policy process. The countermobilization against the reform was led by the conservatives (CDU/CSU) and the far-right (AfD), who were the two largest opposition parties at that time. The high costs for homeowners who still rely on fossil fuels for heating were a central criticism of the reform (August, Clute-Simon, and Adams 2026). In May 2023, the

Figure 1: News media coverage of the German heating reform.

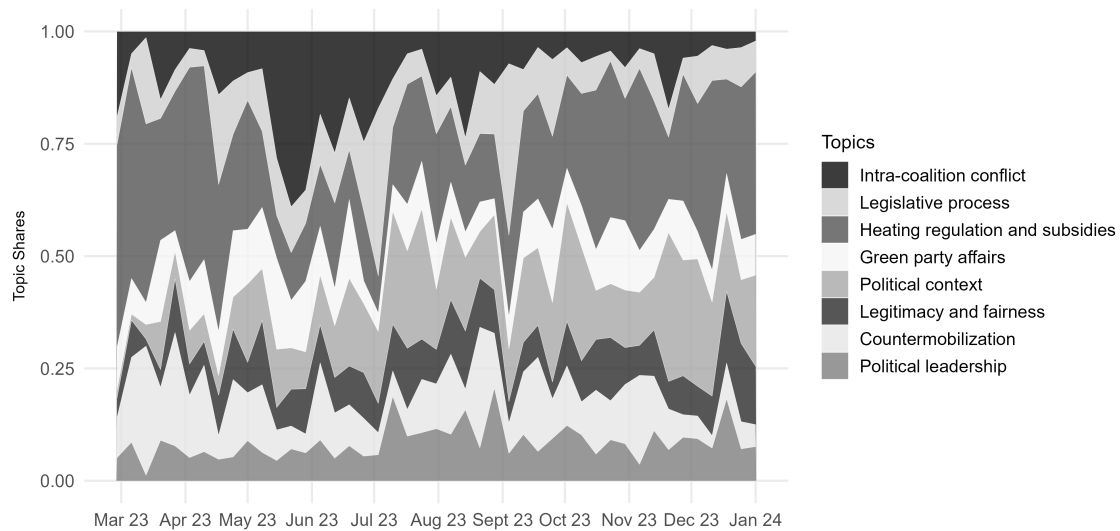


Note: The figure illustrates the number of articles published weekly in regional and nationwide German-language news media covering the German heating law and/or its reform between January 2023 and April 2024. The shaded periods indicate the four survey waves. For more details on the data extraction, see the Appendix.

CDU started its “fair heating” campaign, which criticized the indifference of the reform proposal to the economic consequences for households (CDU 2023). In a similar vein, the AfD developed a major campaign against the reform around the claim that it imposes massive costs upon homeowners (AfD 2023). Further criticism evolved around claims that the policy imposes excessive regulation and that this form of state intervention is illegitimate (Haas et al. 2025). The Greens and, in particular, their Minister for Economy and Climate Action, Robert Habeck, were the most prominent targets of criticism (August, Clute-Simon, and Adams 2026). However, much criticism was also generally targeted at the government.

The liberal party (FDP) played an ambiguous role, being part of the governing coalition while still criticizing the reform publicly (Haas et al. 2025). In late May, the FDP blocked the attempt of its coalition partners to open the parliamentary debate on the reform. In this context, the focus of the media debate also shifted from discussing policy design and implications to covering intra-coalition conflict (see Figure 2). The FDP ultimately pressured its coalition partners to renegotiate the details of the reform. On June 13, the coalition leaders published guidelines, which clarified the final contours of the reform. Most importantly, the coalition agreed on a longer transition period (Tagesschau 2023).

Figure 2: Topic salience in the news media coverage of the German heating reform.



Note: The figure illustrates the relative salience of eight topics in the media discourse on the heating reform. The topics are illustrated in the order they are listed on the right. The topics were identified by applying the Latent Dirichlet Allocation algorithm of the stm R package to all statements related to the heating reform in the news corpus (see the Appendix for more details).

After another postponement of the parliamentary decision due to a ruling of the Federal Constitutional Court, which received a lot of attention from the media (see Figures 1 and 2), the reform was adopted on September 8. It prescribed that only new buildings must be equipped with climate-friendly heating systems¹ by January 1, 2024, postponing the initial ban on new oil and gas heating systems by several years (Bundesregierung 2024).² The government also decided to add multiple subsidy schemes. The legislation foresaw that up to 70 percent of the costs for the replacement of a fossil-fueled heating system can be subsidized by the state. While all homeowners could apply for a subsidy covering 30 percent of the costs, another 30 percent of funding was reserved for those who occupy their residential property and have an annual income below €40,000. Additional funding incentivized the replacement before the entry into force of the installation ban. The reform also foresaw household credits with beneficial conditions provided by the state-sponsored KfW bank. While the original draft foresaw that eight percent of

1. Heating systems are considered climate-friendly in the GEG reform if they are powered by at least 65% renewable energy.

2. The ban was postponed to June 30, 2026, for cities with more than 100,000 residents, and to June 30, 2028, for smaller municipalities.

the costs that homeowners bear for replacing fossil-fuel heating systems could be passed on to tenants, the government ultimately decided on ten percent instead. Finally, the adopted law also allowed homeowners to repair their fossil-fuel heating system.

Despite these adjustments, CDU/CSU and AfD continued to criticize the high costs of the policy for homeowners during the final debate in parliament (Bundestag 2023a). The policy was also a central campaign issue in the lead-up to the federal elections in 2025. While the Greens and SPD largely defended the reform, CDU/CSU, AfD, and FDP voiced intentions to dismantle the policy (Tagesschau 2025). After entering office in 2025, the new government consisting of CDU/CSU and SPD further weakened the reform. The Buildings Modernization Act, which was passed in July 2026, replaced the GEG. It effectively repealed the ban on oil and gas heating systems and instead relies on a biogas quota to incentivize decarbonization (Bundesregierung 2026).

4 Data and Empirical Strategy

4.1 Data and Measurement

To measure public attitudes, we use survey panel data from Konc et al. 2026, which was collected in four waves between January 2023 and March 2024. Participants were asked to report their attitudes and preferences on a wide range of questions related to particular policy issues and politics in general (see the Appendix for more details). The panel includes 8,335 observations spread roughly equally across the four waves. In total, 3,438 individuals participated in the survey, although not every individual participated in every wave. The sample used for this analysis can be considered representative of the German population, even though the average respondent is marginally older, better educated, and has a slightly lower income (see Table 1).

We select three outcome variables to track changes in support for climate policy. First, survey participants are asked how concerned they are about climate change on a scale from “not at all” to “very much”. *Climate change concern* may fall when it is crowded out by other concerns. Since concern about climate change does not necessarily translate into policy support, participants are further asked whether they support particular climate policies. These include an economy-wide carbon tax, subsidies for the expansion of renewable energies, subsidies for heat insulation in buildings, and financial contributions to climate action in developing countries. To measure *climate policy support*, we build an index that captures the average level of support for these climate policies. Even if individuals are concerned about climate

Table 1: Composition of survey samples in comparison to the German population.

	German population	Full survey panel	Treatment group	Control group
Female	50.6%	50.4%	47.9%	51.2%
Male	49.3%	49.3%	51.9%	48.6%
Age < 40	31.4%	34.4%	21.8%	38.0%
Age ≥ 40	68.6%	65.6%	78.2%	62.0%
East Germany	15.5%	15.9%	14.2%	16.6%
West Germany	79.7%	80.1%	85.0%	78.3%
Monthly net income < €4000	67.8%	68.2%	57.2%	73.1%
Monthly net income ≥ €4000	32.2%	25.5%	35.5%	20.8%
Academic degree	24.4%	29.4%	35.1%	26.8%
No academic degree	75.6%	69.3%	64.3%	71.7%

Note: Data on the German population is retrieved from the Federal Statistical Office (Destatis 2024). The population data is compared to the full panel means ($n = 8,335$), the treatment group means ($n = 1,962$), and the control group means ($n = 5,669$) across all survey waves.

change and generally supportive of measures to protect the climate, they might still not be willing to pay for such policies (Bakaki and Bernauer 2017). Thus, finally, participants are asked to state whether they are willing to accept higher prices for fossil fuels in order to contribute to climate protection. This item serves as a proxy for the *willingness to pay* for climate policy. All three outcome variables measure public attitudes on a Likert scale from 1 (negative) to 5 (positive). We expect that all are negatively impacted by exposure to the costs of the German heating reform.

To measure support for political institutions, we use three other survey items. We argue that the government is most closely associated with a new policy, since it is responsible for designing and implementing it. Cost exposure might also lead to declining trust in parliament, since parliament is ultimately responsible for adopting the policy. Parliament also serves as a political stage to debate the policy. In the case of the German heating reform, the parliamentary process caused an additional controversy, since the governing coalition tried to implement the reform in a fast-track procedure and initiated the parliamentary debate without having provided a final legislative draft. This was heavily criticized by the opposition (Bundestag 2023a). Survey respondents were asked to evaluate to what degree they trust the

Federal Government and Parliament to do what is best for society. Similar to the climate policy items, responses were measured on a five-point Likert scale. We expect that exposure to the costs of the policy impacts *trust in government* and *trust in parliament* negatively. Finally, we measure *partisan support* on a four-point scale from far-left (Die Linke), to center-left (Bündnis 90/Die Grünen, SPD), center-right (CDU/CSU, FDP), and far-right (AfD). For this item, participants are asked which party they would support in the case of an election. We expect that cost exposure causes a shift to the right, as left-wing parties were the strongest advocates of the heating reform and are generally more supportive of climate policy, while right-wing parties are the strongest critics, particularly the far-right.³

4.2 Identification Strategy

To estimate the effect of exposure to the projected costs of the heating reform on political attitudes, we apply a DiD design. We argue that the leak of the draft bill on February 28 serves as an intervention suitable for conducting causal inference. Before this date, there was no considerable media coverage of the policy (see Figure 1). This supports the assumption that the policy was not anticipated by the public. As others have argued, the leak was the impetus that triggered the contentious public debate about the reform (August, Clute-Simon, and Adams 2026; Haas et al. 2025; Loschke et al. 2026). Even though there was at this point still considerable uncertainty about the final policy design and potential compensation measures, people received the information that the government was planning a ban on new fossil-fuel heating systems by January 1, 2024. Since media salience was exceptionally high during this period (see Figure 1) and policy design was the most dominant topic (see Figure 2), we assume that people were made aware of the policy and its projected consequences between survey waves one and two.

On June 13, 2023, during the second survey wave, the government announced its final policy proposal and the postponement of the planned installation ban.⁴ Still, the media debate continued and was only resolved in the context of the adoption in September 2023. Hence, during wave three, individuals, for the first time, had certainty about the policy's scope and content. However, uncertainty about the individual consequences of the policy remained, concerning, for instance, necessary retrofit measures and market prices for heat pumps. The media salience only fully flattened after the enactment of the policy in January 2024. Since we do not have

3. For a full overview of survey items used as outcome variables and respective response options, see Table 2 in the Appendix.

4. 92.7% of individuals in the sub-sample used for the 2×2 DiD design responded before June 13, which means that they still expected to face an installation ban by January 1, 2024. We test whether wave two responses made before June 13 differ significantly from those made after. We find no significant differences (see Table 4 in the Appendix).

real treatment and control groups, we consider those disproportionately exposed to the projected costs as treated. We consider individuals disproportionately exposed if they own the dwelling they live in and use gas, oil, or coal as heating fuel. The control group consists of all remaining individuals in the sample.⁵ Approximately one in four respondents is part of the treatment group.

Individuals who own the place they live in are disproportionately exposed because they pay for the costs of replacing the heating system themselves. Although the government offers subsidies of up to 70 percent of the investment costs, homeowners still have to bear high costs. Kisting et al. 2026 estimate that transitioning to a heat pump requires total investments between €20,000 and €53,000. Since landlords are only allowed to pass on up to 10 percent of the costs for replacing the heating system, tenants are much less affected. The anticipated costs for homeowners were even higher than the real costs, for three reasons: First, the ban was postponed by four years, which could not have been foreseen. Second, the level of subsidies was only determined shortly before the adoption of the reform. Third, during the policy debate, there was still much uncertainty about the costs of renewable heating and the development of electricity prices. This was strategically exploited by the policy's opponents. The AfD, for instance, claimed that replacing fossil-based heating systems with heat pumps can require investments well above €100,000 (AfD 2023). BILD even claimed that some homeowners might face costs above €500,000 (Rödger 2023). Those homeowners who do not use oil, gas, or coal for heating either rely on electricity already or on district heating. These groups are also part of the control group as they are not expected to face any costs from the policy.

The condition of the dwelling is also an important criterion for cost exposure, because the costs of switching to heat pumps are typically higher if the building was constructed according to older building standards and has undergone renovations (Kisting et al. 2026). Although we have information on the age of the building that respondents live in, we do not know whether their dwelling has been renovated. Therefore, we do not exclude homeowners from the treatment group based on building age.⁶ Another criterion for cost exposure is the state of the heating system. The older the heating system, the more likely its replacement in the near future. Since

5. There are individuals whose treatment status changed over the course of the survey period. This could be because (a) they switched from being tenants to homeowners or vice versa, or (b) they installed renewable heating. While (a) is most likely exogenous, (b) could be endogenous. For the majority of individuals who switch groups, (b) applies. This suggests that they have installed renewable heating. However, at the same time, a large share of them state that they have not made any investments in a more efficient heating system since the last survey wave. Thus, they might have simply made a false claim in the previous wave. To make sure that this does not induce bias in the results, we exclude all individuals whose status changed.

6. We test whether our results change if only homeowners who live in old buildings (building age < 1977) are considered part of the treatment group. The estimated effects only change marginally.

we do not have data on the age of the heating system, we cannot account for this. However, all homeowners with fossil fuel-based heating are exposed to some costs in the future, even if the system has just been installed. The reform fully prohibited the operation of such heating systems by 2044. Hence, those homeowners who have recently installed a new heating system cannot use it as long as they originally expected.⁷

A central assumption of the DiD estimator is that the pre-treatment trends for the treatment and control group are parallel. Since the data used for this study only contains one pre-treatment observation, we cannot empirically test for parallel trends. By including covariates, we rule out observable confounders as a potential source of non-parallel trends. We also apply propensity score matching to correct covariate imbalances as a robustness test. However, the assumption might still be violated due to unobserved differences between the treatment and control groups. For two reasons, it is still unlikely that the parallel trends assumption is violated. First, even though there are differences between treatment and control group in the distribution of responses by outcome for wave one, these are, with the exception of trust in parliament, statistically insignificant when compared in a two-sided t-test (see Table 5 in the Appendix). Second, homeowners with oil or gas heating systems have so far not been disproportionately exposed to other major policies. The heating reform was the first policy introducing strict climate regulations for private heating. Exposure to the costs of other climate policies, such as the German carbon tax or feed-in-tariff, is largely independent of homeownership.⁸

Another potential source of bias is overlapping policy exposure. Changes in attitudes over the survey period attributed to cost exposure from the heating reform might also be explained by other political developments if they affected the same groups. Since we cannot empirically test for overlapping exposures, we cannot rule out such a bias entirely. However, we argue it is unlikely that other political developments have noticeably impacted political attitudes through the same channels as the heating reform. Reviewing all major political developments in German politics in 2023, Angenendt and Kinski (2024) mention six issues, next to the heating reform, that were particularly important. As in 2022, Russia's war in Ukraine and the related

7. The GEG foresees that oil and gas heating systems need to be replaced after 30 years of usage (BMWE 2019). This provision existed before and was not substantially changed by the reform.

8. Until 2022, households had to pay a renewable energy surcharge, which financed the feed-in-tariffs. The surcharge was calculated based on the level of electricity consumption and therefore did not affect homeowners disproportionately. The carbon tax is also paid by both homeowners and tenants. Since January 1, 2023, landlords pay a share of the tax, meaning that tenants do not bear the full costs anymore, while homeowners do (Bundesregierung 2022). We do not expect this policy change to have an effect on public attitudes since it has limited consequences and attracted little attention in public debates.

debate about inflation, especially in the energy sector, were still relevant. However, the salience of both issues declined considerably over the course of the year, making it unlikely that the issues co-determined changes in attitudes. Still, we include related covariates to rule out any confounding effects. The other prominent issues highlighted either did not relate to climate policy or did not cause overlapping policy exposure.⁹

To estimate the average treatment effect, we apply a two-way fixed effects regression model, which includes both time and unit fixed effects. To account for intra-unit correlation, we cluster standard errors by respondent ID. The model follows a standard 2×2 DiD design, estimating the average treatment effect β_1 on an outcome variable O , where i denotes individual respondents and t survey waves (see Equation 1).

$$O_{it} = \alpha + \beta_1 (post_t \times T_i) + \gamma cov_{it} + \delta_i + \theta_t + \varepsilon_{it} \quad (1)$$

It includes the interaction term between the treatment indicator T_i and the post-intervention indicator $post_t$ to isolate the effect of cost exposure on our outcome variables O . For this model, we only include values for wave one ($t = 1$) and wave two ($t = 2$). To have a balanced panel, we use a sub-sample including all 1,516 individuals who participated in both waves ($n = 3,032$). Unit fixed effects δ_i control for time-invariant differences between respondents, while time fixed effects θ_t account for wave-specific differences. Two covariates cov_{it} are considered to control for time-varying individual characteristics that may confound the relationship between the treatment and the outcome variables but are exogenous to the treatment assignment.

First, we control for changes in heating costs, since Germans faced a sudden surge in heating fuel prices after Russia’s full-scale invasion of Ukraine in 2022. Although market prices had stabilized when the debate around the heating reform began (Destatis 2026), cost increases for some individuals materialized with delay. This might have differed between the treatment and the control group, since many individuals in the control group rely on district heating, which was affected later by the price hikes than oil and gas (Behr, Köveker, and Küçük 2024). To control for this, we create a dummy variable that indicates whether individuals’ heating costs increased over the past six months, either through an increase in the advance payment or through a corrective bill. Second, households received compensation for the price shocks at different points in time when the survey was conducted (Konc et al. 2026). Since homeowners and tenants benefited at different times¹⁰, we include

9. The remaining events were the attacks on Israel by Hamas and Israel’s subsequent war in Gaza, the debate about Child Basic Security, migration policy, and the Federal Constitutional Court’s ruling on the violation of the constitutional debt brake.

10. The government subsidized the heating costs for all households relying on gas or district

a binary variable indicating whether individuals think they were compensated for the price increases or not as another covariate.

In addition to the standard 2×2 DiD design, we analyze dynamic treatment effects to compare the pre-intervention outcome ($t = 1$) to the outcome of each subsequent wave individually. This allows us to not only assess the immediate response to the leaked draft bill and the subsequent media debate, but also the persistence of these effects. For this analysis, we use another sub-sample of the panel, which only includes those 1,083 individuals who participated in all four waves ($n = 4,332$). We assume that some of the effects that we observe in wave two are reversed or at least mitigated in waves three and four, since the government substantially watered down the ambition of the policy and thereby alleviated affected individuals from some of the expected losses.

5 Results

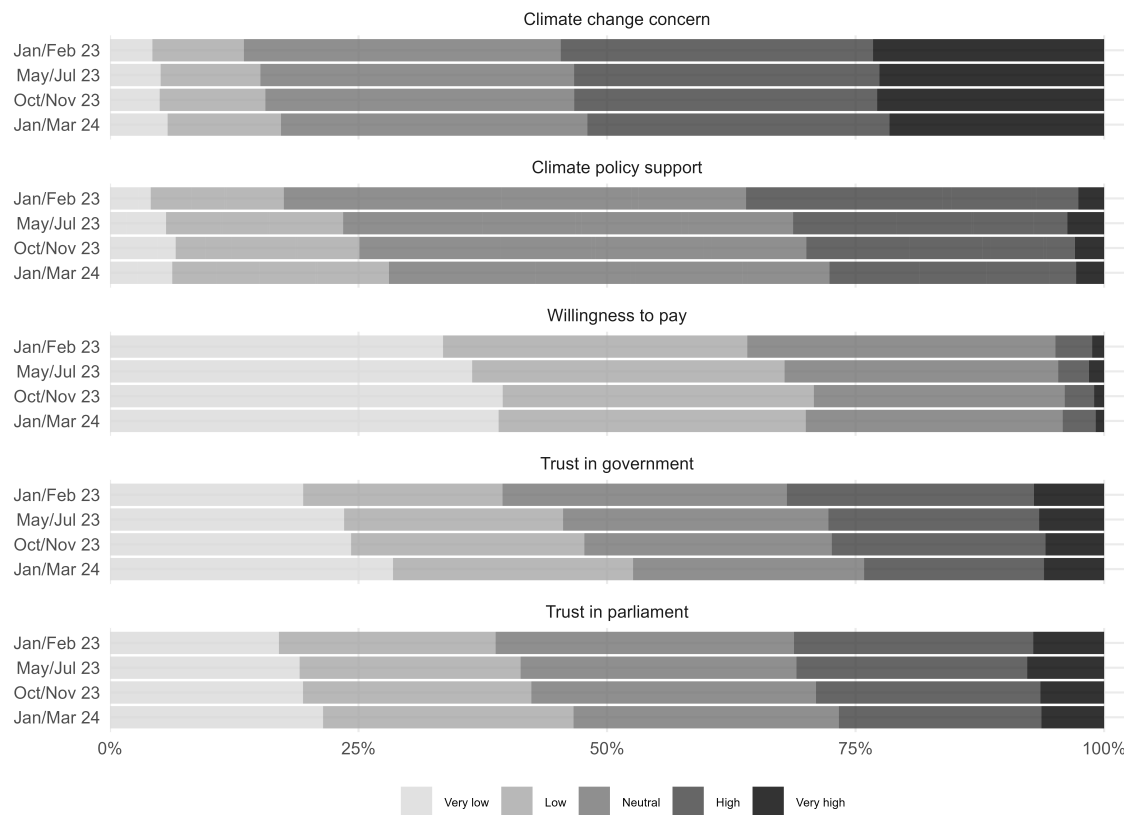
5.1 Descriptive Results

Before estimating the effects of cost exposure on public attitudes, we analyze descriptively how outcomes shifted between January 2023 and March 2024. Figures 3 and 4 illustrate the relative distribution of responses by outcome and survey wave for the full sample. It reveals that people generally became more dismissive of climate policy and more distrustful of both government and parliament. At the same time, respondents shifted to the right in their partisan support. The shifts are generally largest between the first and second wave, particularly for climate policy support and trust in government.

The shift across survey waves is least visible for climate change concern, where the share of those who express (very) low climate change concern increased moderately from 13.5% to 17.2% over the survey period. This means that even though the number of respondents who are (very) little concerned about climate change increases slightly, the majority of respondents are still (very) concerned. Support for particular climate policies dropped more resolutely, particularly between wave one and two. The share of respondents registering (very) high support for climate policy fell from 36.0% to 31.3% between wave one and two and to 27.6% over the full survey period. The willingness to pay for climate policy is generally lower than climate change concern and climate policy support. Still, it decreased over time as well. The share of those willing to accept only a minor cost increase or none at all increased from 64.1% to 67.9% between January and July 2023 and to 70.0% over the entire

heating in December 2022. While most homeowners received the benefit immediately, most tenants only received the subsidy over the course of 2023 (BMWK 2022a).

Figure 3: Relative distribution of responses by outcome and survey wave.

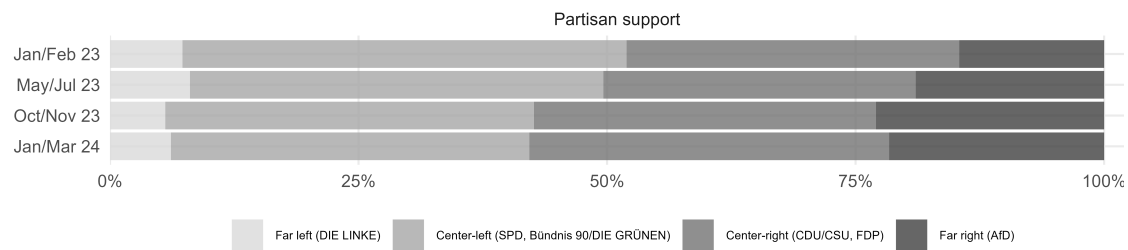


Note: The figure illustrates the relative distribution of responses by outcome and survey wave for the full sample ($n = 8,335$). Although the response options slightly differ by survey item (see Table 2 in the Appendix), they are all measured on a five-point Likert scale.

period. Generally, these results indicate an increasing oversaturation with climate policy among the German population during the period of the survey.

Trust in the Federal Government and Parliament also gradually declined over this period. For trust in government, the shift is most pronounced between wave one and two. The share of those having (very) little trust in government increased from 39.5% to 45.6% between wave one and two, and to 52.6% over the full period. The increase for parliament was less pronounced, amounting to 7.8% for the entire survey period. These developments were accompanied by a shift to the right in partisan support. While the majority of respondents (52.0%) still supported left-wing parties during the first wave, their share fell to 42.2% over the survey period. The strongest increase was registered by the far-right.

Figure 4: Relative distribution of responses by outcome and survey wave.



Note: The figure illustrates the relative distribution of responses for partisan support by survey wave for the full sample ($n = 8,335$).

These changes are substantial considering the short time period of approximately one year. Even though the timing of the survey neatly fits the period of the debate around the heating reform, suggesting a causal link, we cannot simply attribute the changes in public support to the policy change. To present more robust causal evidence, we isolate the effect of disproportionate exposure to the projected costs of the reform in the following.

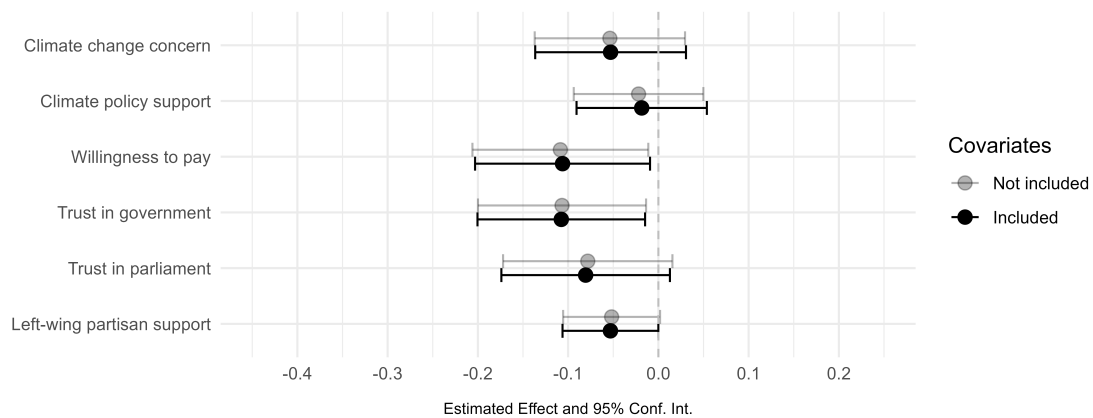
5.2 Difference-in-Difference Results

Figure 5 illustrates the estimated effect sizes for the treatment indicators in a 2×2 DiD setting, comparing outcomes in wave one to those in wave two. For climate change concern, we register a small negative effect (-0.05), which is statistically insignificant.¹¹ There is no effect on climate policy support (-0.02).¹² However, those exposed to the expected costs of the reform become, on average, significantly less willing to pay for new climate policy (-0.11**). We also estimate a statistically significant negative effect on trust in government (-0.11**), which means that those most exposed to the cost of the policy turn significantly more distrustful of the Federal Government. Trust in the Federal Parliament is also negatively affected. The effect, however, is smaller (-0.08*). We also find a small but significant negative effect on left-wing partisan support (-0.05**). The inclusion of covariates changes the estimates only slightly. None of the effects are large, but considering the short time period between the two waves and the fact that, particularly trust in political institutions, is typically quite stable (Devine and Valgarsson 2024), we interpret the effects as moderate negative responses.

11. The effect sizes indicated in the brackets correspond to the models that include covariates. Significance is indicated as follows: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

12. We also estimated the effect on support for each individual climate policy part of the climate policy support index and find no effects.

Figure 5: Average treatment effects.



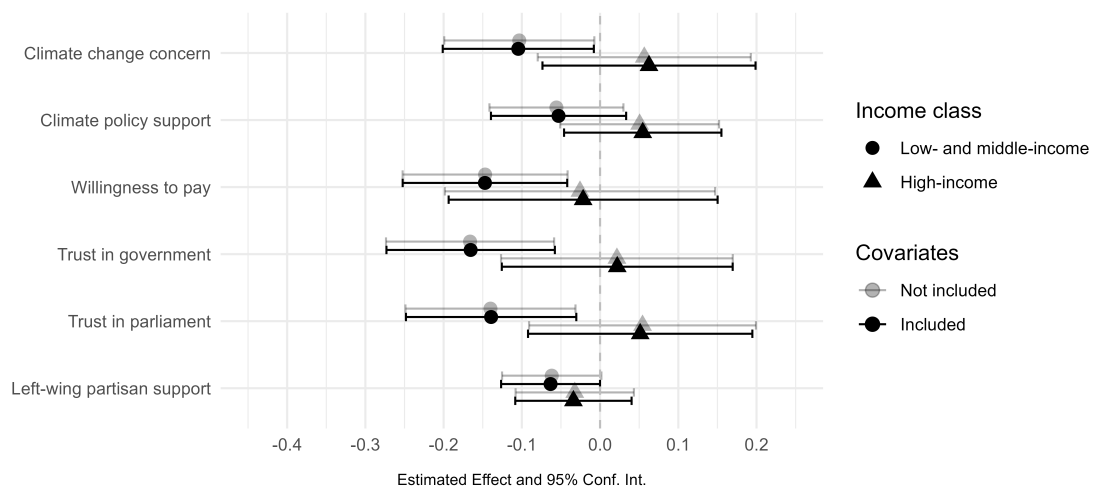
Note: The listed models compare outcomes for wave one to outcomes for wave two. Outcome variables are indicated on the left. Covariates include changes in heating costs and government compensations for energy crisis received. All models include unit and time fixed effects. Standard errors are clustered by respondent ID.

As argued in Section 2, these effects might be moderated by household income. Individuals with high income have a greater ability to absorb the costs imposed by climate policy, while low-income individuals may face substantial hardship. We therefore use net monthly household income as a proxy for the capacity to pay for climate policy. In our survey, household income is measured in 13 brackets. The median income bracket for the treatment group in wave one ranges from €3,000 to €3,999. To estimate heterogeneous treatment effects by income, we split the treatment group along the median. Thus, the *high-income* group comprises all those individuals who are most exposed to the costs of the policy and have a net monthly household income equal to or above €4,000 in wave one. The *low- and middle-income* group, in turn, includes all those fulfilling the criteria and having an income below €4,000 in wave one. While the prior group covers 31.8% of the individuals in the treatment group, the latter includes the remaining 68.2%. The regressions are conducted for both treatment subgroups individually, while the control group remains the same.

The heterogeneity in treatment effects by income level for each outcome variable is indicated in Figure 6. The analysis reveals that there is, in fact, considerable heterogeneity in all estimates. There is a significant effect on climate change concern among low- and middle-income households who are exposed to the projected costs (-0.10**). This suggests that concern about climate change was crowded out by economic concerns when individuals with low capacity to pay were threatened with having to bear the costs of switching to renewable heating. There is, again, no

considerable effect on climate policy support in either of the two groups. However, low- and middle-income individuals in the treatment group are much more likely than high-income individuals to retract their willingness to pay (-0.15^{***}). The effect for the high-income group, in contrast, is close to zero. Similar heterogeneity is observed for trust in government and parliament. While cost exposure is associated with a significant deterioration of trust in government (-0.17^{***}) and parliament (-0.14^{**}) among those with low and middle income, we observe no effect for those with high income. Hence, the public response is strongly moderated by income. The shift to the right in partisan support is slightly more pronounced among low- and middle-income households (-0.06^*).

Figure 6: Heterogeneity in treatment effects by income.



Note: The listed models compare outcomes for wave one to outcomes for wave two. Outcome variables are indicated on the left. Covariates include changes in heating costs and government compensations for energy crisis received. All models include unit and time fixed effects. Standard errors are clustered by respondent ID.

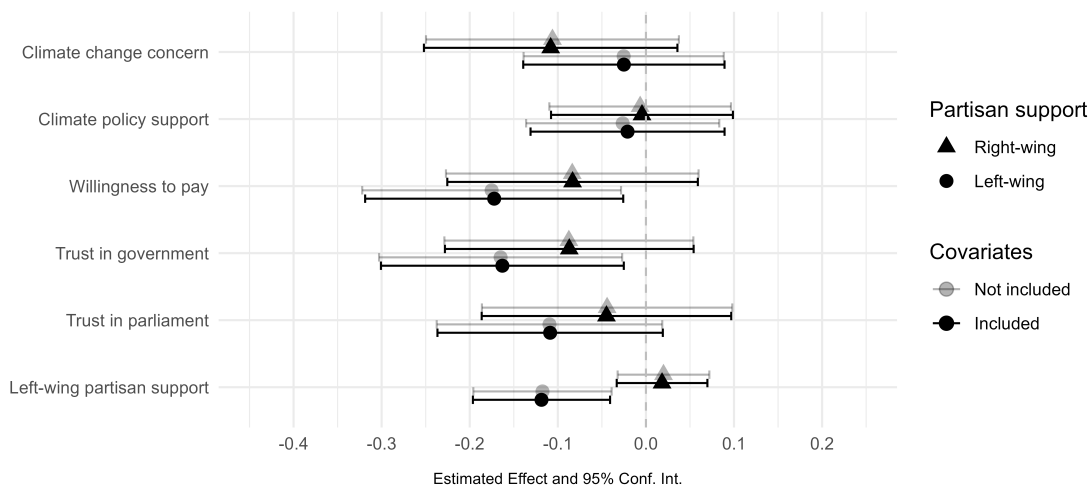
We also expect public responses to be moderated by exposure to partisan cues. The public discourse over the German heating reform was heavily politicized along partisan lines. The Greens-led BMWK initiated the heating reform and was responsible for drafting it. Thus, the Minister for Economy and Climate Action, Robert Habeck, who was, at that time, also the co-leader of the Green Party, was considered the main architect of the policy. The Greens were consequently also the reform's most prominent promoters in public debates. The SPD generally supported the policy but largely preserved a low profile in public. The FDP, in contrast, heavily criticized the policy in public, despite being part of the governing coalition, for not leaving individuals with sufficient choices over which technology to use for heating (Haas

et al. 2025). The conservative and far-right opposition initiated fierce campaigns against the policy (see Section 3). Hence, we can assume that people who initially supported right-wing parties (CDU/CSU, FDP, and AfD) were more receptive to negative partisan cues from their trusted party leaders, while supporters of left-wing parties (SPD, Bündnis 90/Die Grünen, Die Linke)¹³ were more receptive to positive cues. In this regard, we hypothesize that right-wing partisan support stated in the first wave is associated with a stronger negative response than left-wing partisan support. To measure the heterogeneity along this partisan divide, we split the treatment group by support for right-wing parties (47.4%) versus support for left-wing parties (52.6%) in the first wave.

The results presented in Figure 7 reveal that the effects of cost exposure are moderated by party preferences, but not strictly in the way expected. The effect on climate change concern (-0.11) is stronger among supporters of right-wing parties, but the effect is statistically insignificant. We do not observe any heterogeneity in climate policy support. For willingness to pay, we find a large and significant negative effect among supporters of left-wing parties (-0.17**) and a much smaller effect among supporters of right-wing parties (-0.08). This contradicts our expectation that exposure to partisan cues might drive heterogeneity. There are two possible explanations for this. First, supporters of left-wing parties might have simply become more dismissive of price-based policy. However, the effects among left-wing party supporters on trust in government (-0.16**) and parliament (-0.11*) are also larger. Therefore, we consider this unlikely. Second, the effect might be due to a reverse "ceiling effect" (Margalit 2013). Attitudes toward climate policy and political trust were already lower among right-wing party supporters before the policy change. Supporters of left-wing parties, in contrast, might have been particularly disappointed by the government, because left-wing parties have in the past often claimed that climate policy is associated with benefits, not costs. This could have led some of them to lose trust in government. It might have also motivated a disproportionate shift to the right in partisan support. We estimate a highly significant effect of -0.12*** on left-wing partisan support among those who expressed support for left-wing parties in wave one.

13. Although leaders of Die Linke also criticized the reform, their criticism only targeted distributional effects. The party generally has a strong pro-climate agenda.

Figure 7: Heterogeneity in treatment effects by party preference.

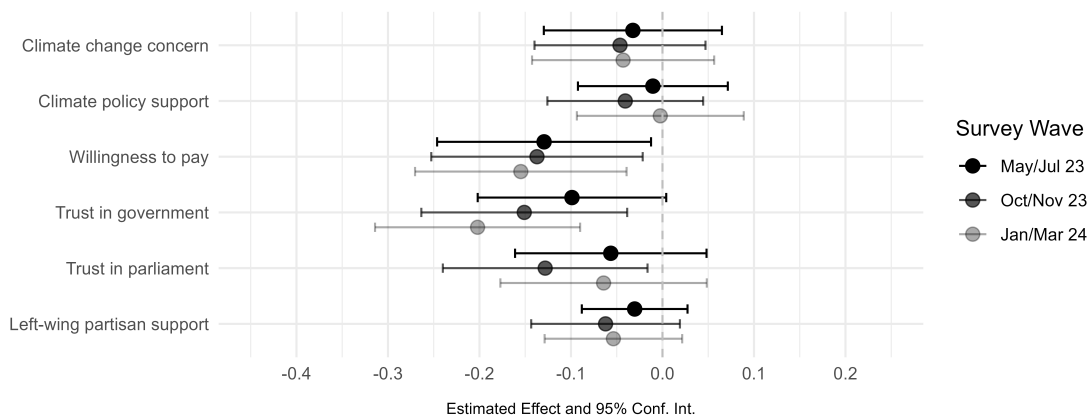


Note: The listed models compare outcomes for wave one to outcomes for wave two. Outcome variables are indicated on the left. Covariates include changes in heating costs and government compensations for energy crisis received. All models include unit and time fixed effects. Standard errors are clustered by respondent ID.

Until this point, we have only analyzed the direct response to the BILD leak and the subsequent debate around the initial draft bill for the heating reform, comparing the outcomes for waves one and two. In the following, we will assess whether these effects persisted even after the ban on new oil and gas heating systems was postponed. Therefore, we compare the outcomes for wave one to those of all three subsequent waves individually.¹⁴ The results are illustrated in Figure 8. For attitudes on climate change and policy, the expectation that the strongest effects occur between waves one and two is largely confirmed. Wave two was conducted when the salience of the issue in the media discourse was highest, but the exact policy design was still uncertain. However, the effects do not diminish after the government's decision to postpone the ban on fossil-based heating systems and to create generous subsidy schemes. The effect of cost exposure on willingness to pay persists and even slightly deepens over waves three (-0.14**) and four (-0.15***).

14. As above, we use a balanced panel, which means that the size of both the treatment and the control group falls, since many individuals who participated in waves one and two did not participate in all four waves. Estimates are therefore less likely to be statistically significant.

Figure 8: Treatments effects over the full survey period.



Note: The figure compares the cost exposure effects over the full survey period. The first survey period is considered the baseline. For each outcome variable, one individual regression model is created. Covariates include changes in heating costs and government compensations for energy crisis received. All models include time and unit fixed effects. Standard errors are clustered by respondent ID.

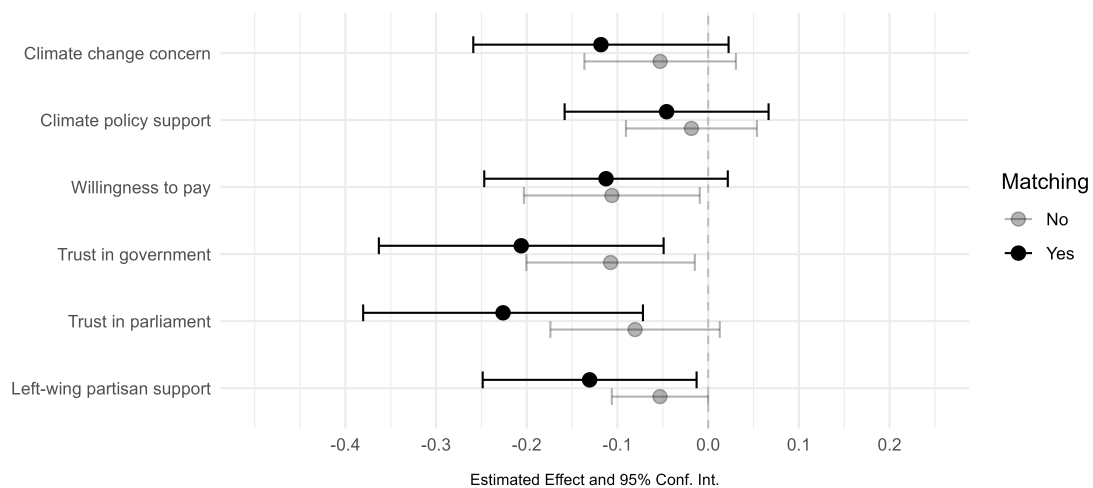
The estimated effect on trust in the Federal Government increases gradually and reaches -0.20^{***} in wave four. This suggests that trust in government cannot be reinstated by the postponement of the policy. On the contrary, it is associated with an even further decline. Until wave three, there is a similar dynamic for trust in parliament (-0.13^{**}). Wave three took place shortly after the final debate on the reform in parliament. The effect might reflect discontent with the curtailed role of the parliament in the policy process. During the first parliamentary debate, the parliament was unable to debate the final version of the bill, since the governing coalition insisted on a fast-track legislative procedure. This was thereupon condemned by the Federal Constitutional Court (Bundestag 2023b). The negative effect on trust in parliament, however, does not persist until the end of the survey period (-0.06). The shift to the right in partisan support also persists and deepens slightly in waves three (-0.06) and four (-0.05), but remains small.

6 Robustness

In the following, we perform several tests to substantiate the robustness of our results. Since we cannot fully rule out non-parallel trends (see Section 4), we first apply matching to correct pre-treatment covariate imbalance. Table 1 compares the socio-demographic and socio-economic characteristics of the treatment group with those of the control group. It shows that the treatment group is, on average, older,

better educated, wealthier, and more likely to live in West Germany than the control group. To test whether the estimated effects hold under the condition that the treatment and the control group have matching characteristics, we apply propensity score matching (Imai, Kim, and Wang 2023). We therefore match each individual in the treatment group with one in the control group by the four characteristics that display the largest imbalance, namely age, region (East Germany/West Germany), household income, and education level (academic/non-academic). Matching is performed for waves one and two individually and considerably reduces the covariate imbalance in both cases (see Figure 12 in the Appendix). However, the statistical power of the models is also smaller due to reduced sample size ($n = 1,992$).

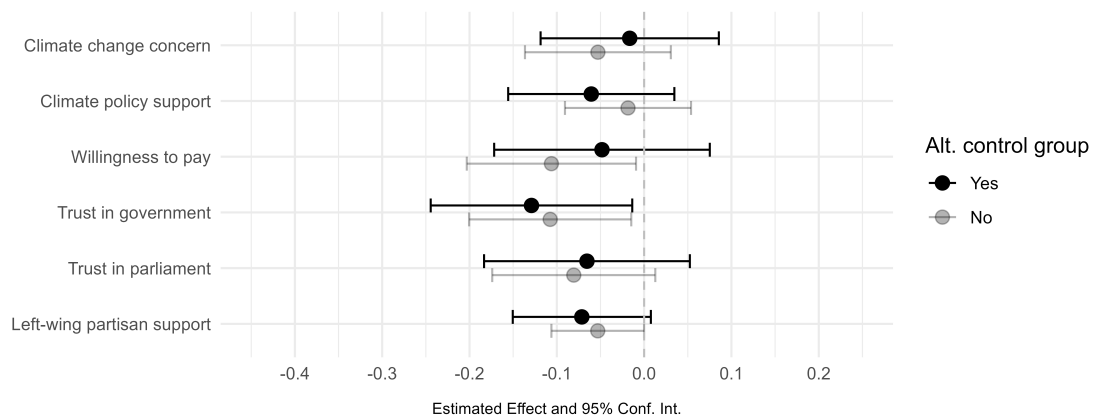
Figure 9: Treatment effects before and after matching.



Note: The listed models compare outcomes for wave one to outcomes for wave two. Outcome variables are indicated on the left. Covariates include changes in heating costs and government compensations for energy crisis received. Propensity score matching by age, region, income, and education level is applied for waves one and two individually. Unmatched models include unit and time fixed effects. Matched models include only time fixed effects, since the panel is not consistent. Standard errors are clustered by respondent ID.

While the effect on willingness to pay remains stable (-0.11), the effects on political trust are larger after matching compared to before (see Figure 9). We estimate a large and significant effect on both trust in government (-0.21**) and trust in parliament (-0.23***). We also find a larger negative effect on left-wing partisan support (-0.13**). In sum, these estimates underscore the robustness of our main results and alleviate concerns about non-parallel trends.

Figure 10: Average treatment effects under alternative control group.



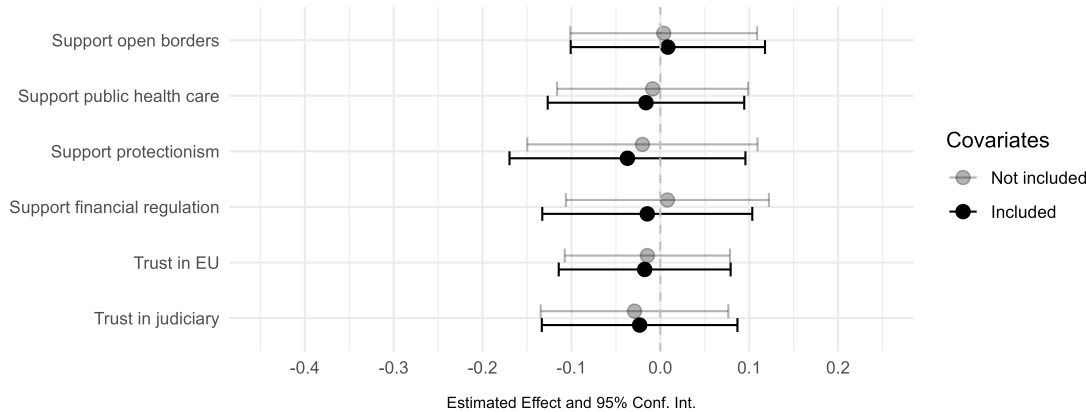
Note: The listed models compare outcomes for wave one to outcomes for wave two. Outcome variables are indicated on the left. Covariates include changes in heating costs and government compensations for energy crisis received. All models include unit and time fixed effects. Standard errors are clustered by respondent ID.

Another potential issue is the broad specification of our control group. It includes both homeowners who rely on renewable or district heating and all tenants, regardless of their type of heating. Even though tenants with oil or gas boilers face much lower costs from the heating reform than homeowners with similar heating systems, they might still face some costs since up to 10 percent of the transition costs can be passed on to tenants. Therefore, we expect the estimated treatment effects to increase if tenants are removed from the control group. To test this, we redefine the control group so that only those individuals are considered part of it who use district heating or electricity ($n = 344$). This alternative specification induces several changes to the estimated effects (see Figure 10).

The effect on willingness to pay is lower in this specification (-0.05), indicating that it is more strongly driven by homeownership than by heating type. This suggests that some of the homeowners reduce their willingness to pay for climate policy in reaction to the policy change, despite not being directly exposed to the projected costs of the reform, perhaps because the policy is regarded as unjust for homeowners in general or because they are unsure about whether they will be affected as well. This suggests that it is not only self-interest but also affinity to the in-group that matters for how people respond to policy change (Haselswerdt 2020). The effects on trust in government (-0.13**) and left-wing partisan support (-0.07*) are instead slightly larger than with the original control group, which indicates that they are driven by both homeownership and heating type.

To further scrutinize the robustness of the results, we perform a placebo test on the outcome variables (Eggers, Tuñón, and Dafoe 2024). Therefore, we replace the original outcome variables with survey items that also measure support for policies and political institutions but are unrelated to the heating reform and then re-estimate the treatment effects. The test underscores the robustness of our results if the estimated placebo effects are close to zero. First, we select four items that measure policy support in areas completely unrelated to the heating reform: migration, health, trade, and financial policy. Second, we select two items related to trust in political institutions largely uninvolved in the process of the heating reform: the European Union and the judiciary. The effects of our treatment indicator on these placebo outcomes are close to zero and statistically insignificant, underscoring the robustness of our results (see Figure 11).

Figure 11: Treatment effects on placebo outcomes.



Note: The listed models compare outcomes for wave one to outcomes for wave two. Outcome variables are indicated on the left. Covariates include changes in heating costs and government compensations for energy crisis received. Standard errors are clustered by respondent ID.

7 Conclusion

Policies that aim to phase out fossil fuels can cause electoral backlash among affected constituencies (Colantone et al. 2024; Egli, Schmid, and Schmidt 2022; Voeten 2025). In this paper, we assess whether people affected by such policies also adjust their attitudes toward climate policy and their level of trust in political institutions. We exploit the case of the German heating reform, the first phase-out policy for oil and gas boilers in Germany, by estimating the effect of disproportionate exposure to the projected costs of the reform on attitudes toward climate policy, trust in political institutions, and partisan support.

Our findings indicate that, despite the short time period, expected cost exposure has caused a significant decline in willingness to pay for further climate policy and a loss of trust in government. We also find small negative effects on trust in parliament and left-wing partisan support. However, cost exposure does not significantly affect support for other climate policies. We show that the effects persisted despite the postponement of the policy. Our heterogeneity analysis reveals that the effects are particularly pronounced among individuals in low- and middle-income households. We also find that a negative response is more likely among individuals who supported left-wing parties before the event, indicating that partisan cues play a more complicated role than initially expected. These results show that individuals who face economic losses from climate policy adjust their attitudes accordingly. Although our analysis is limited to the case of the German heating reform, we would expect similar public reactions to other policies that impose concentrated costs. However, previous research on policy backlash has shown that public reactions are not only determined by policy attributes. The political and economic circumstances as well as the means of parties and vested interests to mobilize also matter (Anisimova and Patterson 2025; Patashnik 2023; Patterson et al. 2025).

Our findings offer several lessons for both research on public opinion and climate policy. First, we show that material interest can be an important motivator whenever the personal economic costs are high, and the capacity to pay is limited. This effect is, as others have shown, not specific to the case of climate policy (Chong, Citrin, and Conley 2001; Haselswerdt 2020; Marble and Nall 2021; Slothuus and Bisgaard 2021). Previous research has shown that people adjust their policy preferences when exposed to economic shocks, even if the consequences have not fully materialized (Margalit 2013). We show that this has implications not only for policy support, but also for political trust.

Second, our findings indicate that people anticipate the costs from new policy and adjust their attitudes accordingly when policy changes are sufficiently salient in the media discourse. This speaks to research on policy feedback, which has often relied on the assumption that public responses materialize over the course of multiple years, for instance, when people get accustomed to social benefit systems (Campbell 2012; Pierson 1993; Soss and Schram 2007). It also suggests that the thermostatic model of public responsiveness (Atkinson et al. 2021; Soroka and Wlezien 2010; Wlezien 1995) is not enough to understand individual-level responses to policy activity. Although we do find descriptive evidence for thermostatic adjustments on the aggregate level, we also show that the distributional effects of policy matter greatly for how individuals respond.

Finally, we find that trust in government can be lost whenever policies fail to reassure those exposed to the costs that their losses will be mitigated. This, in turn, has

destabilizing effects for democracy, since a lack of political trust promotes abstention from voting and motivates support for anti-establishment parties, most prominently the populist radical right (Bélanger and Nadeau 2005; Hetherington 1999; Hooghe, Marien, and Pauwels 2011).

Regarding the green transition, this finding underscores the importance of designing climate policies that sufficiently compensate those who are most vulnerable to their costs. Previous research has come to similar results. Although renewable energy deployment has also been associated with political costs (Stokes 2020), it can increase support for pro-environmental parties if the co-benefits are accentuated (Otteni and Weisskircher 2022; Urpelainen and Zhang 2022). The support for phase-out policy among those most vulnerable to its costs tends to be conditioned upon compensation measures (Gaikwad, Genovese, and Tingley 2022). Moreover, combining environmental protection measures with social and economic policy has been shown to raise public support (Bergquist, Mildemberger, and Stokes 2020). Similarly, just transition policies have been shown to suppress electoral backlash (Bolet, Green, and González-Eguino 2024). The case of the German heating reform additionally shows that reassurance is not only a matter of compensation but also of communication. Cost relief and benefits need to be credible to assure vulnerable groups that they can manage the transition.

References

- AfD. 2023. *Heizhammer stoppen*. Alternative für Deutschland.
- Andre, Peter, Teodora Boneva, Felix Chopra, and Armin Falk. 2024. “Globally representative evidence on the actual and perceived support for climate action.” *Nature Climate Change* 14 (3): 253–259. <https://doi.org/10.1038/s41558-024-01925-3>.
- Angenendt, Michael, and Lucy Kinski. 2024. “Germany: Political Developments and Data in 2023.” *European Journal of Political Research Political Data Yearbook* 63 (1): 171–182. <https://doi.org/10.1111/2047-8852.12448>.
- Anisimova, Ksenia V., and James J. Patterson. 2025. “Unraveling the conditions for post-adoption contestation over hard climate policy in OECD countries.” *npj Climate Action* 4 (1): 61. <https://doi.org/10.1038/s44168-025-00270-1>.
- Arias, Sabrina B., and Christopher W. Blair. 2024. “In the Eye of the Storm: Hurricanes, Climate Migration, and Climate Attitudes.” *American Political Science Review* 118 (4): 1593–1613. <https://doi.org/10.1017/S0003055424000352>.

- Atkinson, Mary Layton, K. Elizabeth Coggins, James A. Stimson, and Frank R. Baumgartner. 2021. *The Dynamics of Public Opinion*. Cambridge University Press. <https://doi.org/10.1017/9781108871266>.
- August, Vincent, Veza Clute-Simon, and Cosima Adams. 2026. “Climate obstruction in unlikely contexts: de-thematization, scare frames, and strategic differentiation in Germany.” *Environmental Politics* 0 (0): 1–24. <https://doi.org/10.1080/09644016.2026.2644016>.
- Bakaki, Zorzeta, and Thomas Bernauer. 2017. “Citizens show strong support for climate policy, but are they also willing to pay?” *Climatic Change* 145 (1): 15–26. <https://doi.org/10.1007/s10584-017-2078-x>.
- Barnes, Lucy, and Timothy Hicks. 2018. “Making Austerity Popular: The Media and Mass Attitudes toward Fiscal Policy.” *American Journal of Political Science* 62 (2): 340–354. <https://doi.org/10.1111/ajps.12346>.
- Bartels, Larry M. 1993. “Messages Received: The Political Impact of Media Exposure.” *American Political Science Review* 87 (2): 267–285. <https://doi.org/10.2307/2939040>.
- Behr, Sophie M., Till Köveker, and Merve Küçük. 2024. “Wärmemonitor 2023: Trotz weiter gestiegener Preise sparen private Haushalte weniger Heizenergie.” *DIW Wochenbericht* 91 (45): 691–701. https://doi.org/10.18723/DIW_WB:2024-45-1.
- Beiser-Mcgrath, Liam F., and Marius R. Busemeyer. 2024. “Carbon inequality and support for carbon taxation.” *European Journal of Political Research* 63 (4): 1286–1307. <https://doi.org/10.1111/1475-6765.12647>.
- Bélanger, Éric, and Richard Nadeau. 2005. “Political trust and the vote in multiparty elections: The Canadian case.” *European Journal of Political Research* 44 (1): 121–146. <https://doi.org/10.1111/j.1475-6765.2005.00221.x>.
- Bergquist, Parrish, Matto Mildemberger, and Leah Stokes. 2020. “Combining climate, economic, and social policy builds public support for climate action in the US.” *Environmental Research Letters* 15 (5): 054019. <https://doi.org/10.1088/1748-9326/ab81c1>.
- Berkebile-Weinberg, Michael, Danielle Goldwert, Kimberly C. Doell, Jay J. Van Bavel, and Madalina Vlasceanu. 2024. “The differential impact of climate interventions along the political divide in 60 countries.” *Nature Communications* 15 (1): 3885. <https://doi.org/10.1038/s41467-024-48112-8>.

- BMWE. 2019. *Das neue Gebäudeenergiegesetz – kurz zusammen gefasst*. Bundesministerium für Wirtschaft und Energie.
- BMWK. 2022a. *Dezemberabschlag für Gas und Wärme: Informationsblatt für Mieterinnen und Mieter*. Bundesministerium für Wirtschaft und Klimaschutz.
- . 2022b. *Klare Investitionsanreize und pragmatischer Übergang mit Ausnahmen und Übergangsfristen*. Bundesministerium für Wirtschaft und Klimaschutz.
- Bolet, Diane, Fergus Green, and Mikel González-Eguino. 2024. “How to Get Coal Country to Vote for Climate Policy: The Effect of a “Just Transition Agreement” on Spanish Election Results.” *American Political Science Review* 118 (3): 1344–1359. <https://doi.org/10.1017/S0003055423001235>.
- Bosetti, Valentina, Italo Colantone, Catherine E. De Vries, and Giorgio Musto. 2025. “Green backlash and right-wing populism.” *Nature Climate Change*, 1–7. <https://doi.org/10.1038/s41558-025-02384-0>.
- Boudreau, Cheryl, and Scott A. MacKenzie. 2014. “Informing the Electorate? How Party Cues and Policy Information Affect Public Opinion about Initiatives.” *American Journal of Political Science* 58 (1): 48–62. <https://doi.org/10.1111/ajps.12054>.
- Bundesregierung. 2022. *Gesetz zur Aufteilung der Kohlendioxidkosten*. Bundesministerium der Justiz und Verbraucherschutz.
- . 2024. *Gebäudeenergiegesetz (GEG)*. Bundesministerium der Justiz und Verbraucherschutz.
- . 2026. *Gebäudemodernisierungsgesetz (GModG)*. Bundesgesetzblatt.
- Bundestag. 2023a. *Bundestag beschließt das Gebäudeenergiegesetz trotz heftiger Kritik*. Deutscher Bundestag.
- . 2023b. *Bundesverfassungsgericht: Eilantrag gegen Gebäudeenergiegesetz erfolgreich*. Deutscher Bundestag.
- Bürgisser, Reto, Isabelle Stadelmann-Steffen, and Klaus Armingeon. 2026. “Can information, compensation and party cues increase mass support for green taxes?” *Journal of European Public Policy* 33 (3): 821–848. <https://doi.org/10.1080/13501763.2024.2444332>.
- Bush, Sarah Sunn, and Amanda Clayton. 2023. “Facing Change: Gender and Climate Change Attitudes Worldwide.” *American Political Science Review* 117 (2): 591–608. <https://doi.org/10.1017/S0003055422000752>.

- Campbell, Andrea Louise. 2012. "Policy Makes Mass Politics." *Annual Review of Political Science* 15:333–351. <https://doi.org/10.1146/annurev-polisci-012610-135202>.
- CDU. 2023. *Fair heizen: Wir geben den Menschen eine Stimme*. Christlich Demokratische Union Deutschlands.
- Chancel, Lucas, Cornelia Mohren, Philipp Bothe, and Gregor Semieniuk. 2025. "Climate change and the global distribution of wealth." *Nature Climate Change*, 1–11. <https://doi.org/10.1038/s41558-025-02268-3>.
- Chong, Dennis, Jack Citrin, and Patricia Conley. 2001. "When Self-Interest Matters." *Political Psychology* 22 (3): 541–570. <https://doi.org/10.1111/0162-895X.00253>.
- Colantone, Italo, Livio Di Lonardo, Yotam Margalit, and Marco Percoco. 2024. "The Political Consequences of Green Policies: Evidence from Italy." *American Political Science Review* 118 (1): 108–126. <https://doi.org/10.1017/S0003055423000308>.
- Dechezleprêtre, Antoine, Adrien Fabre, Tobias Kruse, Bluebery Planterose, Ana Sanchez Chico, and Stefanie Stantcheva. 2025. "Fighting Climate Change: International Attitudes toward Climate Policies." *American Economic Review* 115 (4): 1258–1300. <https://doi.org/10.1257/aer.20230501>.
- Destatis. 2024. *GENESIS-Online*. Statistisches Bundesamt.
- . 2026. *Wärmepreisindex*. Statistisches Bundesamt.
- Devine, Daniel, and Viktor Orri Valgarsson. 2024. "Stability and change in political trust: Evidence and implications from six panel studies." *European Journal of Political Research* 63 (2): 478–497. <https://doi.org/10.1111/1475-6765.12606>.
- Druckman, James N., Erik Peterson, and Rune Slothuus. 2013. "How Elite Partisan Polarization Affects Public Opinion Formation." *American Political Science Review* 107 (1): 57–79. <https://doi.org/10.1017/S0003055412000500>.
- Egan, Patrick J., and Megan Mullin. 2012. "Turning Personal Experience into Political Attitudes: The Effect of Local Weather on Americans' Perceptions about Global Warming." *The Journal of Politics* 74 (3): 796–809. <https://doi.org/10.1017/S0022381612000448>.
- Eggers, Andrew C., Guadalupe Tuñón, and Allan Dafoe. 2024. "Placebo Tests for Causal Inference." *American Journal of Political Science* 68 (3): 1106–1121. <https://doi.org/10.1111/ajps.12818>.

- Egli, Florian, Nicolas Schmid, and Tobias S. Schmidt. 2022. “Backlash to fossil fuel phase-outs: the case of coal mining in US presidential elections.” *Environmental Research Letters* 17 (9): 094002. <https://doi.org/10.1088/1748-9326/ac82fe>.
- Erikson, Robert S., and Laura Stoker. 2011. “Caught in the Draft: The Effects of Vietnam Draft Lottery Status on Political Attitudes.” *American Political Science Review* 105 (2): 221–237. <https://doi.org/10.1017/S0003055411000141>.
- Fenger, Jannik. 2026. “Policy information and opinion change: panel studies from European Union referendums.” *Journal of European Public Policy* 0 (0): 1–25. <https://doi.org/10.1080/13501763.2026.2654570>.
- Gaikwad, Nikhar, Federica Genovese, and Dustin Tingley. 2022. “Creating Climate Coalitions: Mass Preferences for Compensating Vulnerability in the World’s Two Largest Democracies.” *American Political Science Review* 116 (4): 1165–1183. <https://doi.org/10.1017/S0003055422000223>.
- Gilens, Martins, and Naomi Murakawa. 2002. “Elite cues and political decision-making.” In *Political decision-making, deliberation and participation*, edited by M.X. Delli Carpini and R.Y. Shapiro, 6:15–49. Research in micropolitics.
- González-Rostani, Valentina, Liam F. Beiser-McGrath, and Michaël Aklin. 2026. “Labor market risk shapes individuals’ environmental attitudes and policy preferences.” *Ecological Economics* 246:108973. <https://doi.org/10.1016/j.ecolecon.2026.108973>.
- Haas, Tobias, Hendrik Sander, Anna Fünfgeld, and Franziska Mey. 2025. “Climate obstruction at work: Right-wing populism and the German heating law.” *Energy Research & Social Science* 123:104034. <https://doi.org/10.1016/j.erss.2025.104034>.
- Haselswerdt, Jake. 2020. “Carving Out: Isolating the True Effect of Self-Interest on Policy Attitudes.” *American Political Science Review* 114 (4): 1103–1116. <https://doi.org/10.1017/S0003055420000465>.
- Heddesheimer, Vincent, Hanno Hilbig, and Erik Voeten. 2026. “The Green Transition and Political Polarization Along Occupational Lines.” *American Political Science Review* 120 (3): 853–875. <https://doi.org/10.1017/S0003055425101226>.
- Hernandez Carballo, Ireri, and Matthew Ryan Sisco. 2024. “Examining the effects of gasoline prices on public support for climate policies.” *Nature Energy* 9 (2): 219–227. <https://doi.org/10.1038/s41560-024-01449-2>.

- Hetherington, Marc J. 1999. "The Effect of Political Trust on the Presidential Vote, 1968–96." *American Political Science Review* 93 (2): 311–326. <https://doi.org/10.2307/2585398>.
- Hooghe, Marc, Sofie Marien, and Teun Pauwels. 2011. "Where Do Distrusting Voters Turn if There is No Viable Exit or Voice Option? The Impact of Political Trust on Electoral Behaviour in the Belgian Regional Elections of June 2009." *Government and Opposition* 46 (2): 245–273. <https://doi.org/10.1111/j.1477-7053.2010.01338.x>.
- Hornsey, Matthew J., Emily A. Harris, and Kelly S. Fielding. 2018. "Relationships among conspiratorial beliefs, conservatism and climate scepticism across nations." *Nature Climate Change* 8 (7): 614–620. <https://doi.org/10.1038/s41558-018-0157-2>.
- Hsiao, Allan, and Nicholas Kuipers. 2026. "Climate crisis and policy inaction in Indonesia." *American Journal of Political Science* 70 (3): 1213–1228. <https://doi.org/10.1111/ajps.70002>.
- Imai, Kosuke, In Song Kim, and Erik H. Wang. 2023. "Matching Methods for Causal Inference with Time-Series Cross-Sectional Data." *American Journal of Political Science* 67 (3): 587–605. <https://doi.org/10.1111/ajps.12685>.
- Jacobs, Lawrence R., and Suzanne Mettler. 2018. "When and How New Policy Creates New Politics: Examining the Feedback Effects of the Affordable Care Act on Public Opinion." *Perspectives on Politics* 16 (2): 345–363. <https://doi.org/10.1017/S1537592717004182>.
- Jerit, Jennifer. 2009. "How Predictive Appeals Affect Policy Opinions." *American Journal of Political Science* 53 (2): 411–426. <https://doi.org/10.1111/j.1540-5907.2009.00378.x>.
- Kistinger, Dorothea, Noah Kögel, Nicolas Koch, and Matthias Kalkuhl. 2026. "The Electoral Impact of Housing Climate Policy: Evidence from Germany." *Environmental and Resource Economics* 89 (8): 51. <https://doi.org/10.1007/s10640-026-01092-3>.
- Konc, Théo, Jan Christoph Steckel, Jacob Edenhofer, Jens Ewald, and Thomas Sterner. 2026. "The Political Consequences of Energy Price Shocks: Evidence from Germany." *CES ifo Working Paper*, <https://doi.org/10.65864/0hme307v8g>.
- Kröger, Mats, Maximilian Longmuir, Karsten Neuhoff, and Franziska Schütze. 2023. "The price of natural gas dependency: Price shocks, inequality, and public policy." *Energy Policy* 175:113472. <https://doi.org/10.1016/j.enpol.2023.113472>.

- Loschke, Carmen, Sibylle Braungardt, Friedhelm Keimeyer, and Jan Rosenow. 2026. "Heating up the headlines: How tabloid framing reshaped Germany's Buildings Energy Act." *Energy Research & Social Science* 138:104832. <https://doi.org/10.1016/j.erss.2026.104832>.
- Marble, William, and Clayton Nall. 2021. "Where Self-Interest Trumps Ideology: Liberal Homeowners and Local Opposition to Housing Development." *The Journal of Politics* 83 (4): 1747–1763. <https://doi.org/10.1086/711717>.
- Margalit, Yotam. 2013. "Explaining Social Policy Preferences: Evidence from the Great Recession." *American Political Science Review* 107 (1): 80–103. <https://doi.org/10.1017/S0003055412000603>.
- Merkley, Eric, and Dominik A. Stecula. 2021. "Party Cues in the News: Democratic Elites, Republican Backlash, and the Dynamics of Climate Skepticism." *British Journal of Political Science* 51 (4): 1439–1456. <https://doi.org/10.1017/S0007123420000113>.
- Missbach, Leonard, and Jan Christoph Steckel. 2026. "The heterogeneous effects of climate policy on households: Evidence from 88 countries." *Journal of Environmental Economics and Management* 139:103382. <https://doi.org/10.1016/j.jeem.2026.103382>.
- Otteni, Cyrill, and Manès Weisskircher. 2022. "Global warming and polarization. Wind turbines and the electoral success of the greens and the populist radical right." *European Journal of Political Research* 61 (4): 1102–1122. <https://doi.org/10.1111/1475-6765.12487>.
- Patashnik, Eric M. 2023. *Countermobilization: Policy Feedback and Backlash in a Polarized Age*. Chicago: University of Chicago Press.
- Patterson, James, Ksenia Anisimova, Jasmin Logg-Scarvell, and Cille Kaiser. 2025. "Reactions to policy action: socio-political conditions of backlash to climate change policy." *Policy Sciences* 58 (2): 287–320. <https://doi.org/10.1007/s11077-025-09578-5>.
- Pierson, Paul. 1993. "When Effect Becomes Cause: Policy Feedback and Political Change." *World Politics* 45 (4): 595–628. <https://doi.org/10.2307/2950710>.
- Rhein, Susanne, and Thomas Bernauer. 2026. "Do policy packages that mitigate uncertainty over long-term policy benefits increase support for costly climate action?" *Journal of European Public Policy* 33 (5): 1467–1493. <https://doi.org/10.1080/13501763.2025.2470313>.

- Roberts, Margaret E., Brandon M. Stewart, Dustin Tingley, Christopher Lucas, Jetson Leder-Luis, Shana Kushner Gadarian, Bethany Albertson, and David G. Rand. 2014. “Structural Topic Models for Open-Ended Survey Responses.” *American Journal of Political Science* 58 (4): 1064–1082. <https://doi.org/10.1111/ajps.12103>.
- Rödder, Sebastian. 2023. “Habecks Heiz-Hammer würde uns 590 000 Euro kosten.” *BILD Zeitung*.
- Slothuus, Rune, and Martin Bisgaard. 2021. “Party over Pocketbook? How Party Cues Influence Opinion When Citizens Have a Stake in Policy.” *American Political Science Review* 115 (3): 1090–1096. <https://doi.org/10.1017/S0003055421000332>.
- Sommer, Stephan, Théo Konc, and Stefan Drews. 2026. “How resilient is public support for carbon pricing? Longitudinal evidence from Germany.” *Ecological Economics* 244:108970. <https://doi.org/10.1016/j.ecolecon.2026.108970>.
- Soroka, Stuart N., and Christopher Wlezien. 2010. *Degrees of Democracy: Politics, Public Opinion, and Policy*. Cambridge University Press.
- Soss, Joe, and Sanford F. Schram. 2007. “A Public Transformed? Welfare Reform as Policy Feedback.” *American Political Science Review* 101 (1): 111–127. <https://doi.org/10.1017/S0003055407070049>.
- SPD, GRÜNE, and FDP. 2021. *Mehr Fortschritt Wagen*. Koalitionsvertrag 2021–2025.
- Statistisches Bundesamt. 2024. *Zensus 2022: Drei Viertel aller Wohnungen mit Gas oder Öl beheizt*. DESTATIS.
- Stokes, Leah C. 2016. “Electoral Backlash against Climate Policy: A Natural Experiment on Retrospective Voting and Local Resistance to Public Policy.” *American Journal of Political Science* 60 (4): 958–974. <https://doi.org/10.1111/ajps.12220>.
- . 2020. *Short Circuiting Policy: Interest Groups and the Battle Over Clean Energy and Climate Policy in the American States*. Oxford University Press.
- Tagesschau. 2023. *Koalition einig: Heizungsgesetz doch diese Woche im Bundestag*. tagesschau.de.
- . 2025. *Nach der Bundestagswahl: Was wird aus dem Heizungsgesetz?* tagesschau.de.

- Tallent, Theodore, Malo Jan, and Luis Sattelmayer. 2026. “More than Symbols: The Effect of Symbolic Policies on Climate Policy Support.” *American Political Science Review* 120 (3): 1106–1126. <https://doi.org/10.1017/S0003055425101408>.
- Urpelainen, Johannes, and Alice Tianbo Zhang. 2022. “Electoral Backlash or Positive Reinforcement? Wind Power and Congressional Elections in the United States.” *The Journal of Politics* 84 (3): 1306–1321. <https://doi.org/10.1086/718977>.
- Voeten, Erik. 2025. “The Energy Transition and Support for the Radical Right: Evidence from the Netherlands.” *Comparative Political Studies* 58 (2): 394–428. <https://doi.org/10.1177/00104140241237468>.
- Wlezien, Christopher. 1995. “The Public as Thermostat: Dynamics of Preferences for Spending.” *American Journal of Political Science* 39 (4): 981–1000. <https://doi.org/10.2307/2111666>.
- Wrátil, Christopher, Jens Wäckerle, and Sven-Oliver Proksch. 2023. “Government Rhetoric and the Representation of Public Opinion in International Negotiations.” *American Political Science Review* 117 (3): 1105–1122. <https://doi.org/10.1017/S0003055422001198>.

Appendix I: Data and Measurement

Survey Data. The survey participants were recruited online. Although all participants from the first wave received the invitation to participate in the subsequent waves, not all of them did so. To maintain panel consistency, participants who dropped out between waves were replaced. After a successful pre-test, the first survey wave was conducted between January 22 and February 9, 2023. It was distributed to 4,551 individuals, resulting in 2,004 valid responses. The second wave took place from May 23 to July 18, 2023, and yielded 2,100 responses, with over 72% from participants who had also completed the first wave. The third wave was fielded between October 10 and November 16, 2023, producing 2,096 valid responses, 61% from first-wave participants. The final wave was carried out between January 26 and March 11, 2024, and resulted in 2,136 complete responses, 50.7% of which came from individuals who had participated in all previous waves. More information on the survey is provided by Konc et al. 2026.

Table 2: Overview of survey items used as outcome variables.

Variable Name	Survey Item
Climate change concern	How concerned are you about climate change? (1) not concerned at all (2) not very concerned (3) a little concerned (4) very concerned (5) extremely concerned (6) don't know
Climate policy support	To what extent are you for or against the following climate protection measures? [Uniform CO ₂ tax covering all sectors to increase the price of all fossil fuels] (1) strongly oppose (2) rather oppose (3) neither oppose nor support (4) rather support (5) strongly support (6) don't know
Climate policy support	To what extent are you for or against the following climate protection measures? [Subsidizing the expansion of renewable energy, such as wind and solar] (1) strongly oppose (2) rather oppose (3) neither oppose nor support (4) rather support (5) strongly support

(continued on next page)

Variable Name	Survey Item
	(6) don't know
Climate policy support	To what extent are you for or against the following climate protection measures? [Subsidizing investments in improved heat insulation for buildings to reduce energy consumption for heating and cooling]
	(1) strongly oppose (2) rather oppose (3) neither oppose nor support (4) rather support (5) strongly support (6) don't know
Climate policy support	To what extent are you for or against the following climate protection measures? [Financial assistance for emerging and developing countries to combat climate change]
	(1) strongly oppose (2) rather oppose (3) neither oppose nor support (4) rather support (5) strongly support (6) don't know
Willingness to pay	Mitigating climate change makes it necessary to reduce the availability of fossil fuels for economic activities. This could cause energy prices to rise. Would you be willing to accept higher costs for gasoline, heating oil, or natural gas in order to contribute to climate protection?
	(1) I would not accept a cost increase (2) I would accept a small cost increase (3) I would accept a moderate cost increase (4) I would accept a large cost increase (5) I would accept a very large cost increase
Trust in government	To what extent do you trust the following actors to do what is best for society? [Federal Government]
	(1) no confidence at all (2) rather low confidence (3) neither low nor high confidence (4) rather high confidence (5) high confidence (6) don't know
Trust in parliament	To what extent do you trust the following actors to do what is best for society? [Federal Parliament]
	(1) no confidence at all (2) rather low confidence (3) neither low nor high confidence (4) rather high confidence (5) high confidence

(continued on next page)

Variable Name	Survey Item
	(6) don't know
Partisan support	Which political party would you be most likely to support in an election at this time?
	(1) SPD
	(2) CDU/CSU
	(3) Bündnis 90/Die Grünen
	(4) FDP
	(5) AfD
	(6) Die Linke
	(7) Another party
	(8) No party
	(9) Don't know

News coverage data. To provide a measure of the policy's salience and to illustrate how the timing of the survey waves corresponds with the public debate around the policy, we extracted German-language news articles published between January 1, 2023, and April 30, 2024, mentioning the reform. We extracted the articles and corresponding metadata from the LexisNexis data archive, using the following search query: "Heizungsgesetz" OR "Gebäudeenergiegesetzes" OR "Gebäude-Energie-Gesetz" OR "Gesetz zum Erneuerbaren Heizen" OR "Heizungshammer" OR "Heizhammer" OR "Heizungsverbot" OR "GEG-Reform" OR "GEG-Novelle". We did not drop duplicates at this stage, since we are interested in the general salience across media outlets. After removing all articles with very little information (< 200 characters), the final dataset includes 14,420 articles from major regional and national newspapers. This allows us to track the salience of the policy in news media over time.

We used this corpus to generate a structural topic model. STM is an unsupervised text-as-data approach which allows to measure the prevalence of different topics in a text corpus (Roberts et al. 2014; Wratil, Wäckerle, and Proksch 2023). We followed several pre-processing steps. After dropping duplicates by title, we tokenized the text, converted tokens to lowercase, and removed stop words. Since many articles in our sample do not only cover the heating reform but also other issues, we filtered our corpus for text segments that mention the reform. For this purpose, we created a new corpus based on a keyword-in-context approach. We searched for each mention of "Heizungsgesetz" OR "Gebäudeenergiegesetzes" OR "Gebäude-Energie-Gesetz" OR "Gesetz zum Erneuerbaren Heizen" OR "Heizungshammer" OR "Heizhammer" OR "Heizungsverbot" OR "GEG-Reform" OR "GEG-Novelle" and include 20 words before and after each mention in the new corpus. On this corpus we apply the Latent Dirichlet Allocation algorithm of the stm R package. We try all variations of $6 < k < 12$ before deciding on the optimal number of topics, $k = 8$. The decision

was made based on a review of the highest probability and FREX words for each topic (see Table 3).

Table 3: Highest probability and FREX words for each topic.

Topic	Highest Probability Words	Highest FREX Words
1	fdp, spd, grüne, berlin, sommerpause, habeck, koalition, bundestag, ampel-koalition, heizungsgesetz, woche, gesetz, diensttag, lindner, streit, einigung, robert, scholz, christian, kabinett	spitzenrunde, fraktionsspitzen, erzielt, koalitionsausschuss, fdp-chef, fdp-fraktion, djir-sarai, koalitionskreisen, durchbruch, wortbruch, bijan, fdp-generalsekretär, christiansen, gesetzspakets, grünen-fraktion, grundsätzlicher, diensttagmorgen, blockierte, einigten, gründlichkeit
2	bundestag, gesetz, freitag, beschlossen, umstrittene, geg, berlin, heizungsgesetz, sommerpause, bundesverfassungsgericht, september, anfang, gebäudeenergiegesetz, ampel-koalition, gesetzentwurf, bundesrat, klimaschutz, verabschiedet, entscheidung, lesung	heilmann, anhörung, schrittweisen, eilverfahren, vorläufigen, expertenanhörung, öko-energie, Änderungsanträge, energieausschuss, eilantrag, reguläre, enthaltungen, legten, neueingebaute, stoppte, bartsch, cdu-abgeordnete, parlamentsbeschluss, unionsfraktionsvize, überarbeiten
3	prozent, wärmeplanung, heizungen, heizung, energien, geg, erneuerbaren, betrieben, januar, wärmepumpe, kommunale, kommunen, gilt, mindestens, einbau, bundesregierung, gas, euro, öl, neu	fernwärme, anforderungen, erfüllen, wärmepläne, neubaugebieten, heizinfrastruktur, kommune, stadtwerke, wärmeplan, erdgas, umbauen, angeschlossen, großstädte, fernwärmenetz, grundförderung, geltenden, boni, förderfähigen, versorger, wärmeerzeugung
4	habeck, robert, grüne, wirtschaftsminister, bundeswirtschaftsminister, habecks, grünen, graichen, gebäudeenergiegesetz, fragen, debatte, staatssekretär, gesetz, minister, berlin, patrick, deutschland, klar, gemeinsam, kritik	staatssekretär, eh40, heiklen, energiesparstandard, flankieren, trugschluss, geholt, machbarkeit, klimaminister, wagenknecht, staatssekretärs, goldschmidt, loch, schiffbrüchiger, unverhältnismäßig, klimaschutzminister, baerbock, nimmermann, graichen, umweltminister
5	ampel, grünen, afd, merz, partei, politik, koalition, cdu, union, regierung, bundesregierung, bevölkerung, deutschland, themen, bürger, klimaschutz, fehler, land, berlin, friedrich	al-wazir, wand, polarisierung, weite, faeser, erbschaftsteuer, böhling, cannabis, härteres, kernforderungen, abgabensenkungen, andree, clankriminalität, tarek, gegenentwurf, hauptgegner, hightech, stegner, cannabis-legalisierung, ardtalkshow
6	bürger, deutschland, streit, heizungsgesetz, bundesregierung, mieter, debatte, klimaschutz, unsicherheit, bürgerinnen, deutlich, deutschen, hohen, afd, klimaziele, umbau, geplante, derzeit, klarheit, ziel	pop, schwesig, manuela, ramona, juden, ministerpräsidentin, anhaltend, veronika, absturz, bergab, leitzinsen, immobilienpreisen, preiskorrektur, mecklenburg-vorpommerns, verzahnen, ausgemerzt, nahenden, sammelsurium, wirtschaftsweise, wohnungsneubau
7	aiwanger, söder, geg, bundesregierung, deutschen, erding, csu, geplante, novelle, wärmepumpen, verbraucher, verunsichert, verunsicherung, geplanten, heizungsgesetz, demokratie, markus, müsse, kundgebung, stand	erding, kundgebung, hubert, zurückholen, demonstration, schweigende, öfen, pelletverband, absatzprognose, bewirkt, instituts, derzeitigem, energieholz, bentele, pelletkesseln, hochkonjunktur, sievers, pelletinstitut, pelletverbands, kabarettistin
8	prozent, scholz, regierung, deutschland, grünen, spd, politik, streit, letzten, land, kanzler, partei, klimaschutz, bundesregierung, afd, ampel-regierung, arbeit, umfragen, olaf, deutschen	meseberg, kabinettssklausur, stets, latif, wirtschaftswachstum, gefällt, zustimmungswerte, führungsstil, mojob, politbarometer, enttäuschung, sommer-pressekonferenz, hoffmann, angela, irgendwem, massivem, befragten, fahrt, vernünftige, unzufrieden

Appendix II: Additional Statistics

Table 4: Difference in wave two means: pre- vs. post-postponement.

Outcome	Estimate	CI	p-value
Climate change concern	-0.089	(-0.306, 0.129)	0.421
Climate policy support	-0.086	(-0.256, 0.084)	0.318
Willingness to pay	-0.015	(-0.199, 0.168)	0.869
Trust in government	0.010	(-0.206, 0.226)	0.925
Trust in parliament	-0.041	(-0.267, 0.184)	0.718

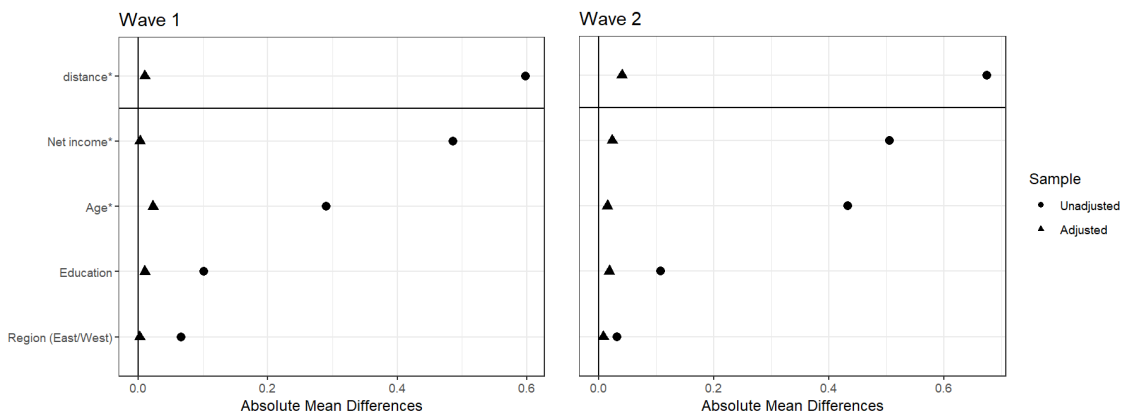
Note: The table summarizes the results of two-sided t-tests, which test for the difference in sample means between wave two responses made before and after June 13, 2023.

Table 5: Difference in wave one means: treatment vs. control group.

Outcome	Estimate	CI	p-value
Climate change concern	-0.015	(-0.142, 0.113)	0.822
Climate policy support	0.063	(-0.034, 0.160)	0.204
Willingness to pay	-0.064	(-0.171, 0.042)	0.236
Trust in government	-0.112	(-0.259, 0.035)	0.134
Trust in parliament	-0.151**	(-0.294, -0.007)	0.040

Note: The table summarizes the results of two-sided t-tests, which test for the difference in sample means of the treatment and control group in wave one. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Figure 12: Covariate balance before and after propensity score matching.



Note: The figure displays the absolute mean difference between treatment and control group for matched covariates in wave (left panel) and wave two (right panel).