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Politics of Food: An Experiment on Trust in Expert Regulation and Economic Costs of Political Polarization*

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Abstract

Addressing rising political polarization has become a focal point for policy makers. Yet, there is little evidence of its economic impacts, especially in contexts where partisanship cannot be easily hidden. To fill this gap, we study a novel channel: the perception of out-group partisan oversight of independent civil service reduces trust in regulation, affecting key markets (e.g., food and medicine). First, we motivate it by demonstrating the salience of the association between the president and expert regulators in US media reporting. Second, in a pre-registered experiment with 5,566 individuals, we test the channel by exploiting an alignment in the way that the EPA under Trump and Biden defended the safety of spraying citrus crops with antibiotics. This enabled us to randomize the partisanship of the administration, holding the scientific arguments constant. Despite the EPA's independence, out-group administration reduces support for the spraying by 26%, lowers trust in the EPA's evaluation, and increases donations to an NGO opposing the spraying by 15%. We find no overall effect on the willingness to pay for citrus products, measured in an obfuscated follow-up survey. However, we document significant differences in effects for elastic vs. inelastic consumers. Taken together, polarization has the potential to affect economic decisions. However, a reduction in trust might not translate into lower demand, especially for inelastic consumers.

JEL Classification: D12, D83, P16, Q11, Q13, Q18, Z18

Keywords: political polarization, civil service, trust in regulation, trust in science, food policy, partisan identity, consumer demand

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1 Introduction

Political polarization has been on the rise in the US since the 1980s, prompting concerns of profound societal consequences (Iyengar et al., 2019). Presuming strong economic impacts, documenting and mitigating polarization have become major themes of research and policy (Levy, 2021; Boxell et al., 2022; Draca and Schwarz, 2024; Kashner and Stalinski, 2024; Braghieri et al., 2024). However, causal evidence of meaningful effects of political polarization on market outcomes is surprisingly scarce, especially outside of contexts where signaling political preferences can be avoided—e.g., firms can refrain from making political references or using divisive figures in marketing (Liaukonytė et al., 2023; Hou and Poliquin, 2024)[1] and job seekers can remove political signals from their CV (Gift and Gift, 2015).

To fill this gap, we focus on a critical yet understudied channel through which political polarization can affect market demand—by reducing trust in expert regulation provided by independent and executive agencies.[2] These agencies, such as the Food and Drug Administration (FDA), are tasked to provide neutral expertise in a range of areas and regulate thousands of products in key markets such as medicine and food, with the latter worth $833 billion annually in the US alone.[3] Crucially, the association between the president and expert regulators in media reporting is *salient*—which we demonstrate empirically using data on how TV stations cover the agencies and regulation.[4] Thus, any economic consequences of polarization operating through this channel are hard to avoid. Quantifying the scope of possible impacts is a pressing challenge, especially in light of Republicans' pledge to overturn parts of the Pendleton Act (1833), which would further curtail the independence of the civil service and increase its perceived politicization.[5]

To that end, we experimentally address the following research questions. First, we ask how does the political affiliation of the president, either in-group (from one's preferred party)

[1] Even in these settings, the evidence of negative impacts on sales is mixed. For example, Liaukonytė et al. (2023) documents that a CEO praising Donald Trump led to a temporary boost in sales.

[2] A key component of affective polarization, which has been rising in the US since 1980s (Boxell et al., 2022), is distrusting out-party supporters, even if they hold expertise on a given topic (Alabrese et al., 2024).

[3] https://www.statista.com/outlook/cmo/food/united-states, accessed 2024-07-17.

[4] We used a dataset of transcripts of shows on major US news networks organized into 15-second intervals. For each interval mentioning a regulation by an agency, we check whether it also mentions the presidential administration. Combining the intervals at the agency-station-show-date level, we report that in 37% of cases where regulation is mentioned, the presidential administration is also named (40% for executive agencies). Since we require both to be mentioned within just 15 seconds, these are very high proportions.

[5] This article explains how Trump's planned measures would remove employment protections for civil servants and make it easier to fire those who resist his policies: https://www.nbcnews.com/politics/2024-election/trump-schedule-f-executive-order-stop-civil-servantsgovernment-rcna128003, accessed 2024-07-17.

or out-group, influence trust in independent agencies and their regulations. Second, we study the consequences for economic decisions. We measure the impact of out-group administration on the support for expert regulations and donations to NGOs that oppose them. Moreover, we quantify the effects on demand for regulated goods. This scrutinizes the potential of polarization, manifesting as distrust towards experts and institutions associated with the out-party, to affect market outcomes in a setting where political signals are inherently salient.

To tackle these questions, we designed an information provision experiment about citrus greening, a disease decimating citrus crops. We exploit a unique opportunity presented by an Environmental Protection Agency (EPA) policy that was issued during the Trump administration and subsequently challenged in court during the Biden administration—in both cases the EPA defended the safety of spraying crops with antibiotics to fight the disease and relied on the same scientific evidence to argue that direct and indirect risks to consumers are minimal (Section 2.3). This allowed us to *randomize* the apparent partisanship of the EPA, an independent agency, while holding the scientific arguments *constant*.

We recruited a sample of N=5,566 US Democrats for the survey via Prolific,[6] a platform that allows researchers to find participants with specific characteristics.[7] Upon collecting demographic data, including baseline levels of orange juice consumption, all participants received information about citrus greening and antibiotic spraying of citrus crops. Subsequently, we randomized them into one of three experimental groups: (1) *Biden* treatment (40% chance), (2) *Trump* treatment (40% chance), or (3) *Control* (20% chance). In the two treatment groups, participants learned about potential risks that were flagged by opponents of the antibiotic spraying. This was followed by the EPA's justification for the policy, including excerpts of scientific evidence used by the EPA to argue that the practice was safe. Participants in the Control group did not learn about the opponents' or the EPA's stance.

In the Trump group, we stated that "the EPA under the administration of President Donald Trump provided arguments and scientific evidence supporting the position that antibiotic spraying of citrus crops poses little risk and meets the regulatory and safety standards." The Biden treatment was identical to the Trump one, except that we replaced all mentions of Trump with Biden. In both groups, we displayed a photo of the respective president—we

[6]We elected to conduct the study with a sample of Democrats rather than Republicans due to their much higher availability on Prolific. According to our power calculation, we needed about 5,500 individuals who complete the first survey to achieve the desired minimum detectable effect—in the range of 0.09-0.1 SD—for our main outcome. It would have been impossible to recruit so many Republican participants on Prolific.

[7]Prolific offers high data quality relative to competitors e.g., CloudResearch, Dynata (Peer et al., 2022).

randomized whether it was a photo of the president shaking hands with the EPA's head or the president's portrait.[8] Including a photo with a caption is a natural addition to the text—when regulation is presented in the news, it is accompanied by photos (websites) or video footage (TV). We also presented a list of specific arguments made by the EPA's scientists. Crucially, the arguments did not vary by treatment. Thus, we achieved our goal of exogenously varying the apparent political affiliation of the EPA, holding all else constant.

After the intervention, we elicited support for the antibiotic spraying of citrus crops, using degree of agreement with statements addressing the question from various angles. We also recorded the amount donated to the United States Public Interest Research Group (USPIRG), a nonpartisan, non-profit organization advocating against the antibiotic spraying. This primary outcome provided us with an incentivized measure of support for the regulation and a first look at the intervention's impact on economic decision making. Lastly, we collected several secondary outcomes, including an index of trust in the EPA's scientific evaluation.[9]

Three days after the initial survey, we invited participants to an obfuscated follow-up study to elicit treatment effects on demand for citrus products. The survey focused on grocery store preferences, a topic very different from the subject matter of the original survey. The two surveys used consent forms and domains from different institutions, adhering to the state-of-the-art recommendations for obfuscation (Haaland et al., 2023). Following decoy questions, we offered participants a chance to bid for a product-specific Amazon gift card for one of the goods mentioned in the survey—orange juice.[10] We used a multiple price list, with participants being asked to make choices between the fixed value product-specific gift card ($8) and variable amounts in cash. We randomly implemented one of the choices. We provided everyone receiving a gift card with an anonymous link, which enabled them to add it to their Amazon account. All participants ex-ante learned that the gift card can only be applied to orange juice purchases.[11] Our method does not require collection of personally identifiable information (PII), such as an email or a physical address. Thus, the method

[8] We cross-randomized photos to demonstrate that choosing a specific image does not drive the results. We do not find heterogeneous effects on the support for the regulation, trust levels, or NGO donations.

[9] Other secondary outcomes include an incentivized measure of beliefs about partisan support for the regulation. We also elicited planned consumption of orange juice (a random subsample of 15% of respondents), and inquired about determinants of the plan (internalities vs. externalities). See Section 4 for the results.

[10] To further enhance the obfuscation, participants were told that they will be asked to bid for a randomly assigned product from the set of products previously mentioned in the survey. We did indeed randomize the assigned product—either orange juice or shampoo, though the latter option had only 1% probability.

[11] We tested that participants understood the relevant instructions using a comprehension question. 96% correctly indicated that they cannot use the gift card for products other than orange juice.

complies with terms of service of survey platforms, allowing WTP elicitation in large-scale online experiments. Moreover, there are over 160 million Amazon Prime users in the US (over 60% of adults),[12] which makes the gift cards convenient to participants.[13]

We now discuss the results of the paper. We report that out-group presidential administration reduces support for the EPA's policy that allowed spraying of antibiotics on citrus crops by 26% ($p<0.001$). Specifically, 28.6% of individuals in the Biden group prefer spraying to remain legal compared to 21.1% in the Trump group. Our pre-registered index of support, based on agreement with four statements, indicates the same pattern ($p<0.001$).[14] Despite the role of independent agencies (such as the EPA) as providers of merit-based expertise, support for their regulations is strongly affected by the president's political affiliation. With agencies regulating critical products such as vaccines and food, this poses potential health risks, and underscores broader consequences of a possible rolling back of the Pendleton Act.

We also document the treatments' impact on trust in the EPA's evaluation. Even though participants in both the Trump and the Biden groups were shown identical scientific evidence used by the EPA to conclude that the antibiotic spraying is safe, the index was significantly higher in the Biden group than in the Trump group ($p<0.001$). This result highlights the relevance of the mechanism proposed in this paper—out-group partisanship of the head of the executive reduces trust in expert regulation made by independent agencies. The remaining question is whether this distrust translates into economic outcomes.

To that end, we report that out-group presidential administration increases donations to a nonpartisan NGO opposing antibiotic spraying by 15% ($p<0.001$). Specifically, the proportion of the bonus payment that Democrats donated to USPIRG in the Trump group was 39.4%, as opposed to 34.3% in the Biden group. We also reject the null hypothesis that the donation distributions by treatment are identical using an Epps-Singleton test ($p<0.001$). The results demonstrate the potential of political polarization to affect economic decision making. The donations have a real opportunity cost, though we acknowledge the small stake (participants split \$1 with USPIRG). It is also important to note that this outcome is not simply an incentivized measure of degree of in-group bias. We deliberately made it

[12] https://www.emarketer.com/chart/248275/, accessed: 2024-10-04.

[13] Amazon Prime users do not have to pay the delivery costs of prime-eligible items. Many citrus products covered by our custom gift cards were prime-eligible.

[14] The index for the Control group was significantly higher (with 46.9% of people preferring that spraying remains legal) than in both treatments. Thus, the net effect of the information about safety of spraying citrus crops with antibiotics was negative. In other words, the EPA's arguments, even with in-group administration, were not sufficient to fully reassure participants who learned about potential risks.

very salient that USPIRG is nonpartisan and non-profit and provided context about the organization's focus on science and public health. Thus, the participants knew that the donation is not a campaign donation, nor would it end up in partisan hands.

Finally, we discuss treatment effects on the WTP for orange juice Amazon gift cards, measured in the follow-up survey. Despite having power to detect effects as small as 0.09-0.1 SD, we find no overall effect of the out-group presidential administration on the WTP. The differences across groups are not significant, with an $8 orange juice gift card, on average, worth $1.69 in the Trump group, $1.61 in the Biden group, and $1.64 in the Control.

Expecting differential response by price elasticity of demand for orange juice, we pre-registered heterogeneity by past consumption (reported prior to treatment assignment). We split participants into three bins: low, medium, and high consumption. We find that demand response is heterogeneous between elastic (low bin) and inelastic (high bin) consumers. The effect of out-group (vs. in-group) presidential administration for elastic consumers is negative—the WTP falls by $0.07, and significantly lower than for inelastic consumers—by $0.32 (p=0.084). We observe the same pattern for the Control. The effect of out-group oversight against the Control is negative for elastic consumers (the WTP falls by $0.17), with the coefficient substantially lower than for inelastic consumers. Interestingly, the treatment effects (Trump vs. Biden) on USPIRG donations are also heterogeneous—the effect sizes are 7.9 pp (p<0.001), 4.9 pp (p=0.02), and 2.4 pp (p=0.36) for the low, medium, and high bins respectively. Inelastic consumers might be more likely to dismiss the issue, potentially due to self-persuasion (Schwardmann et al., 2022), whereas the marginal consumers are more responsive. Taking together the results on NGO donations and orange juice, we conclude that political polarization has the potential to affect economic outcomes. However, any polarization-induced distrust in regulation or product safety may not directly translate into demand for the affected goods, especially for inelastic consumers. This is notable given that we use a particularly fear-inducing issue—food safety, a sentiment confirmed by Pew Research Center data[15] and research studies (e.g., Hwang et al., 2005; Lusk et al., 2006; Dahlhausen et al., 2018).

We perform multiple robustness checks. First, the take-up of the follow-up survey was very high at 88%. We detect no differential attrition, both when performing a joint test across

[15]According to Pew Research Center's data, 80% of Americans believe that meat from animals given antibiotics or hormones poses health risks (32% say that it poses a great risk). The proportions are almost the same for fruits and vegetables grown with pesticides. The survey is available at https://www.pewresearch.org/internet/2018/11/19/public-perspectives-on-food-risks/, accessed: 2024-10-06.

all groups and when comparing the Biden and Trump groups. We also observe no imbalance on observables for those who took up the follow-up survey. Second, one may worry that the EPA is viewed as more polarized than other agencies. We cross-randomized whether we name the EPA directly in our information intervention or use the term "relevant regulatory agency".[16] We find no evidence of heterogeneous treatment effects (Biden vs. Trump) with respect to whether the EPA was directly mentioned. One may also be concerned that participants believed that the spraying does not continue until today. To address this issue, we highlighted in the survey that streptomycin spraying was permitted to continue as of December 2023. As a result, almost 90% of participants indicated that the spraying is ongoing. Lastly, we report robustness of our results to re-weighting observations to match Democrat-identifying Americans on age, race, gender and education.

In an ideal world, the civil service issuing regulation should consider only scientific and economic merit rather than be influenced by the head of the executive, who has nominal oversight over them. Our results on how the administration in power affects trust and support for regulation naturally lead to the question of whether news reporting makes the oversight salient. To address this, we analyze TV news transcript data using GDELT Television Archive from 2009 to 2024. The data is organized into 15-second intervals. For each interval mentioning a regulation by an agency, we check whether it also mentions the president. Combining the intervals at the agency-station-show-date level, we find that in 37% of cases where the regulation is mentioned, a presidential administration is also named—40% for executive agencies and 34% for independent agencies. Since we require both to be mentioned within just 15 seconds, these are very high proportions.[17] We conclude that the association between the president and the agencies in media reporting on regulation is generally salient.

Our work is related to three strands of literature. First, we contribute to emerging research on the economic consequences of political polarization (Iyengar et al., 2019), and cultural divergence more generally (Bertrand and Kamenica, 2023). Prior literature focuses on the effects of revealing political preferences by job applicants and individual sellers (Gift and Gift, 2015; McConnell et al., 2018). Another area of inquiry is consumer responses, including boycotts, to company-level partisan signals, with mixed evidence of their impor-

[16]Given the regulation's focus on antibiotics, participants were unlikely to expect that the EPA is the responsible agency (rather than the FDA or the CDC).

[17]The share was even greater for the EPA (53%), the agency relevant to the experiment. The proportion remained fairly stable in the last 15 years, with a peak during Trump's presidency. The shares do not depend on political leaning of the TV station, with Fox, CNN, and MSNBC data showing similar patterns.

tance (Liaukonytė et al., 2023; Schoenmueller et al., 2023; Liaukonyte et al., 2024; Hou and Poliquin, 2024; Conway and Boxell, 2024). We contribute by using a novel experimental design to evaluate polarization's impact on a range of economic outcomes, such as NGO donations and product demand. We pioneer doing this in a context where partisan signaling is difficult to avoid. Our proposed channel—operating through trust in civil service and expert regulation—pertains to political signaling that is ingrained in the system of government. We motivate the channel by documenting salience of presidential oversight over independent agencies using TV transcript data. We also add to the literature by demonstrating polarization's potential to affect economic outcomes (NGO donations). We caution against assuming that partisan misalignment, and the related dislike or distrust, always translate into changes in demand, by pointing out the moderating impact of price elasticity. Lastly, our results strengthen motivation for studies aiming to understand polarization trends and consider mitigation strategies (Levy, 2021; Boxell et al., 2022; Draca and Schwarz, 2024; Kashner and Stalinski, 2024; Braghieri et al., 2024; Robinson and Tazhitdinova, 2024).

Our paper also adds to the nascent literature on determinants of trust (Fehr, 2009) in institutions, a vital topic given its deterioration over time (Dustmann et al., 2017; Davies et al., 2021) and its welfare consequences (Gollwitzer et al., 2020; Bursztyn et al., 2023). Through our focus on agencies, we specifically add to the literature on trust in government and civil service (Acemoglu et al., 2020; Durante et al., 2021; Martinez-Bravo and Sanz, 2023). Our paper is timely given rising politicization of the civil service and expected overturning of Pendleton Act protections. The results are also related to recent work on trust in science (Alabrese et al., 2024). We show the impact of out-group political oversight on trust in scientific evaluation in a natural and highly consequential context of expert agencies.

Lastly, we make a methodological contribution to the literature on measuring interventions' effects on demand (e.g., Hainmueller et al., 2015; Allcott et al., 2022). To our knowledge, we are the first to apply product-specific Amazon gift cards to estimate the willingness to pay for a good. The anonymous distribution makes our method suitable for measuring the WTP for products in large-scale online studies. We also demonstrate how to practically combine product-specific gift cards with solutions reducing experimenter demand effects (Haaland et al., 2023), thus aiding future research efforts relying on the new approach.

The paper is organized as follows. Section 2 introduces citrus greening and explains the foundations of our experimental variation. Section 3 provides details of the experiment design, whereas Section 4 offers a discussion of results. Lastly, Section 5 concludes.

2 Setting

2.1 Citrus Greening Disease

The food industry worldwide is worth an estimated US$9.12 trillion in revenue per year,[18] and $833.8 billion in the US alone.[19] Of this, citrus production in the US accounts for around $2.5 billion, being primarily based in California, Florida, Texas and Arizona (USDA, 2023). Pests and diseases remain a constant threat to the food industry. In five of the world's key crops, plant pest and disease outbreaks result in average yield losses between 17.2% and 30.0%, with range estimates as high as 41.1% (Savary et al., 2019).

Huanglongbing (HLB), also known as citrus greening disease, is a bacterial infection transmitted by the Asian citrus psyllid. It is an incurable disease which causes citrus trees to produce bitter fruit of poor quality and in most cases kills the tree within a few years of infection.[20] The Florida citrus industry has been greatly impacted by HLB since it was first observed in 2005.[21] Since its arrival, citrus production in Florida has decreased by 90% through to the 2022-23 season (USDA, 2024). Li et al. (2020) estimate that between 2015 and 2020, HLB generated over $1 billion in losses p.a. and 5,000 jobs lost each year. Since the disease is spread by a mobile transmission vector (insects), HLB poses a threat to the citrus industry in other citrus-growing states, being detected in parts of both California and Texas.[22]

2.2 Antibiotic Spraying

In response, the citrus industry searched for ways to manage HLB. Streptomycin, an antibiotic used to treat some bacterial infections in humans, was proposed as a possible treatment. Foliar sprays had been shown to reduce the adverse effects of the disease by increasing fruit size and reducing fruit dropping, though they were not capable of curing the disease.[23] Between 2016 and 2021, the Environmental Protection Agency (EPA), which regulates pesticide usage, issued several emergency approvals to use foliar streptomycin sprays to mitigate the

[18] https://www.statista.com/outlook/cmo/food/worldwide, accessed 2024-08-02.
[19] https://www.statista.com/outlook/cmo/food/united-states, accessed 2024-08-02.
[20] https://www.aphis.usda.gov/plant-pests-diseases/citrus-diseases/citrus-greening-and-asian-citrus-psyllid, accessed 2024-08-02.
[21] https://aglab.ars.usda.gov/learn-and-explore/citrus-greening-portal, accessed 2024-08-02.
[22] https://www.aphis.usda.gov/plant-pests-diseases/citrus-diseases/citrus-greening-and-asian-citrus-psyllid, accessed 2024-08-02.
[23] https://www.regulations.gov/document/EPA-HQ-OPP-2016-0067-0010, accessed 2024-08-02

effects of HLB pending a thorough review of its use.

On January 12, 2021, the EPA issued its final registration decision for the spraying of streptomycin on citrus crops.[24] In the associated report (henceforth, the EPA's report), the EPA considered the environmental impact of the proposal, including what happens to the streptomycin after it is sprayed, and how it can affect plants and animals. It held that the proposed usage carried similar risks to existing approved agricultural applications of streptomycin. The report also considered the possible impacts on human health. While there was no direct concern of toxicity (with streptomycin being used for decades as a human antibiotic drug), the EPA addressed the concern that the spraying could contribute to antibiotic resistance in bacteria. Greater reliance on streptomycin could enable selection on streptomycin resistance in bacteria that cause diseases in humans. Ultimately, the EPA labeled this risk as "medium". Weighed against the potential benefits in treating HLB, which has only one alternative treatment—oxytetracycline—the EPA decided to permit foliar spraying of streptomycin. The approval was for a limited period of seven years to reassess the impact on antibiotic resistance and mitigation, and included a requirement for monitoring the development of antibiotic resistance.

The EPA's policy allowing streptomycin spraying on citrus, a practice that is unlawful in the European Union[25] and Brazil,[26] met opposition within the US. On March 25, 2021, a coalition of public interest groups launched a legal challenge against the final registration decision. The challenge petitioned the court to review and set aside the EPA's decision for failing to comply with the Endangered Species Act and Federal Insecticide, Fungicide, and Rodenticide Act. In response, the EPA submitted their respondent's brief, outlining the legal defense of the decision. In particular, the brief made extensive reference to the EPA's report, and the scientific evidence and evaluations which formed the basis of the final registration decision, in order to defend the decision.

[24] https://www.regulations.gov/document/EPA-HQ-OPP-2016-0067-0229, accessed 2024-08-02.

[25] Streptomycin has never received approval for use as a pesticide under the EU's pesticide regulation Reg. (EC) No 1107/2009. https://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/start/screen/active-substances/details/1175, accessed 2024-08-02.

[26] https://www.gov.br/anvisa/pt-br/setorregulado/regularizacao/agrotoxicos/monografias/monografias-excluidas-por-letra, accessed 2024-08-02. Listed as E15 – Estreptomicina.

2.3 Suitability for Experiment

The particular circumstances of the EPA's decision to allow streptomycin spraying on citrus crops makes it ideal for studying the impact of the perceived partisan oversight of expert agencies on trust and consumer behavior. First, the circumstances of this policy mean that we are able to generate a truthful information provision treatment in which we hold the science supporting the policy constant, while varying only the identity of the presidential administration overseeing the EPA when those scientific statements are supported. Specifically, our treatment draws heavily on statements made in the EPA's respondent brief to the legal challenge.[27] The legal challenge began in March 2021 during the Biden administration. It made several references to the EPA's report[28] and the scientific claims therein, for the purpose of defending the decision. The report itself, which initially made the scientific claims, was published on January 12, 2021, towards the end of Trump's presidency. Thus, we consider that the EPA under both administrations supported these scientific claims that appear in the respondent's brief and make direct reference to the EPA's report.

Second, the spraying policy is not well-known. When asked "Before taking this survey, how familiar were you with the following issues?" on a scale from 0 ("Never heard of the issue") to 100 ("Very familiar"), our participants' average response was 14.89 for "Citrus greening disease" and 15.25 for "Antibiotic spraying to fight citrus greening". This benefits our experimental design as it decreases the probability that prior information attenuates the effect of our information treatment.

The third factor contributing to the suitability of this setting for our experiment is that consumers care a lot about the presence of antibiotics in food production. Compared to other controversial food technologies, pesticides and antibiotics ranked highest in terms of consumer concerns based on representative survey data (Hwang et al., 2005). Hypothetical stated-choice and second-price auction experiments reveal a high willingness to pay for foods produced without antibiotics (Dahlhausen et al., 2018; Bernard and Bernard, 2009), with the results replicated in a field experiment (Lusk et al., 2006). Therefore, changes in trust regarding the health effects of crops treated with antibiotics have considerable potential to shift demand for the underlying good, and thus provide us a strong opportunity to measure any market impacts caused by political polarization.

[27] A copy of the brief is available on the website of one of the complainants: https://www.nrdc.org/sites/default/files/72-epa-brief-corrected-citrus-20221027.pdf, accessed 2024-11-17.

[28] https://www.regulations.gov/document/EPA-HQ-OPP-2016-0067-0229, accessed 2024-11-17.

Taken together, these factors allowed us to generate a strong and truthful information treatment in which we hold the EPA's scientific claims constant while varying the partisanship of the presidential administration.

3 Experiment Design

Our experiment consists of two surveys. During survey 1 (Section 3.1), we conduct an information intervention about spraying antibiotics to combat citrus greening. In particular, we provide scientific arguments about the safety of spraying, which were held constant across our two treatment conditions. Crucially, we randomize the partisanship of the presidential administration (in-group vs. out-group) during which the EPA supported the arguments. We also measure several outcomes, including support for the spraying, trust in EPA's evaluation of its safety, and donations to an NGO opposing the practice. Second, in the obfuscated follow-up survey (Section 3.2), we elicit treatment effects on demand for citrus products. Figure 1 summarizes the structure of the entire experiment.

3.1 Survey 1

3.1.1 Recruitment

We recruited a sample of Democrats from Prolific—an online survey and experiment platform.[29] To screen for Democrats, we relied on Prolific's pre-screener questions, which ask "In general, what is your political affiliation?", recruiting only those who responded "Democrat", where the remaining alternatives were "Republican", "Independent", "None", and "Other". We validate the pre-screener within survey 1. Recruitment began on April 15, 2024 with the first respondents taking survey 1 on this day. In order to achieve our pre-registered target sample size of 5,470, recruitment continued for one month, with the final participant taking survey 1 on May 15, 2024.

3.1.2 Study Flow

Survey 1 was conducted online using Qualtrics. Following the consent procedure, participants answered a series of demographics questions. Among these questions there was an attention check. Respondents who failed this check were excluded from the remainder of the survey.

[29] See Peer et al. (2022) for a discussion of data quality from Prolific.

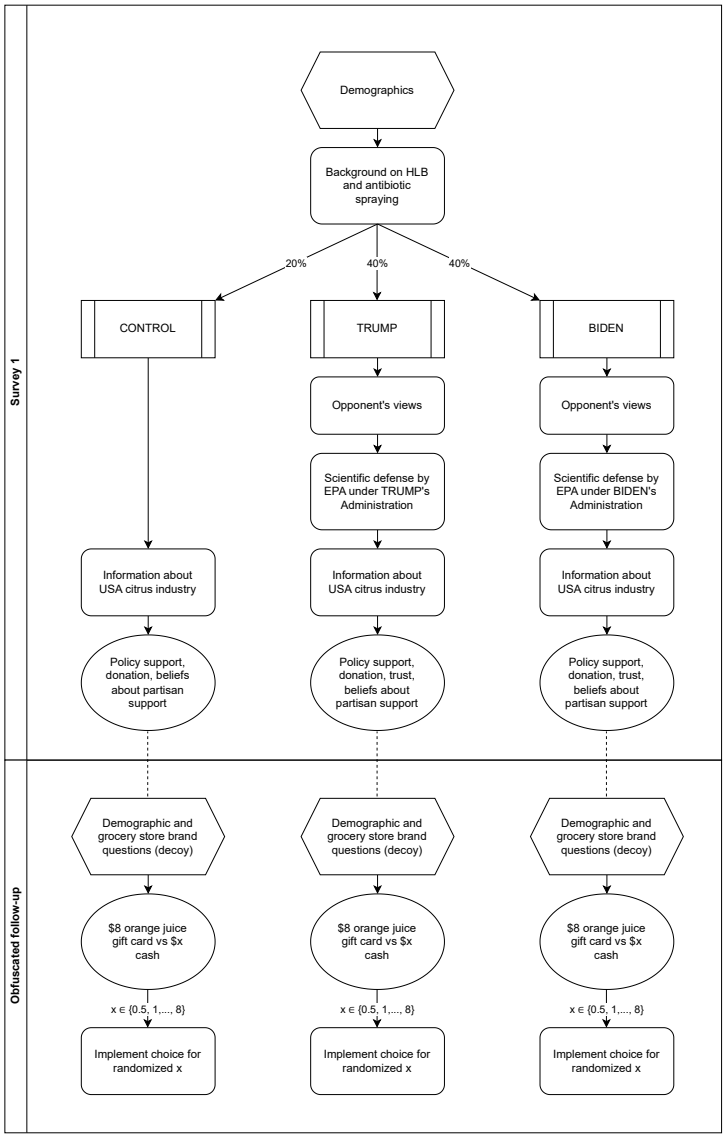


FIGURE 1: STUDY FLOW

Notes: The figure provides an overview of the study flow. It shows the order of information blocks (rounded rectangles), outcome questions (ovals), and demographic and decoy questions (hexagons). It indicates that, following background information on HLB and the policy, participants are randomly assigned to one of three experiment conditions: Control, Biden, and Trump. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense during the Biden administration. For the Trump group, Biden was replaced by Trump; for the Control group, this information is not presented at all. The figure also shows the division between the two surveys with obfuscation taking place between them, indicated by dotted lines.

Background Subsequently, we introduced ourselves as non-partisan researchers interested in public policy issues. We then provided a brief introduction to the issue of citrus greening disease. Specifically, we explained the effects of the disease on the Florida citrus industry, and that large quantities of streptomycin, a medically useful antibiotic, had been sprayed

on citrus trees in the United States. We ensured that the respondents understood this information by asking several comprehension questions.

Group assignment We then randomly allocated the participants into one of three groups. These groups are Control (20% of sample), Biden (40%) and Trump (40%). When assigning groups, we stratified the sample on whether they ever consume orange juice or not,[30] to reduce imbalances on this dimension.

Arguments against spraying For the two treatment groups (Trump and Biden), we provided additional information about the arguments against the use of streptomycin spraying on citrus crops. We did this to minimize experimenter demand which might arise if we only provided the arguments supporting the spraying. Specifically, we explained that streptomycin is not permitted on crops in the European Union and Brazil; that agricultural use of antibiotics may contribute to the prevalence of antibiotic-resistant pathogens; and that direct exposure to antibiotics may affect an individual's health.

Treatment screen 1 The Trump and Biden groups were then shown two screens which provided further information about the EPA's introduction of, and justification for, the spraying. On the first screen, respondents in the Trump group were told that the decision to authorize streptomycin spraying "was supported by the administration of President Donald Trump" and that "the EPA under the administration of President Donald Trump" provided scientific evidence that the risks of the policy met the required standards. For the Biden group, "Donald Trump" was replaced by "Joe Biden". Respondents were also informed about a legal challenge to the policy and that (despite the challenge) streptomycin spraying was permitted to continue as of December 2023. Apart from the two passages above, the body of the text was identical between the Trump and Biden groups.

Treatment screen 2 The second treatment screen contained text that was again identical between the two groups. It provided five statements "backed by scientists from the EPA in favor of streptomycin spraying". These points contained quotes from the EPA's respondent's

[30]Specifically, we classify a participant as a 'never-consumer' of orange juice if they answer "Never" when asked how often in the past month did they (i) buy orange juice, and (ii) consume orange juice, and if thirdly they select "Orange juice" when asked "In general, are there any of these products that you never consume?" We then stratify on whether respondents are classified as never-consumers vs. sometimes-consumers.

brief from the legal challenge (in turn referring to statements made in the EPA's report supporting the decision to allow streptomycin spraying) stating that there were no risks of concern to human health and the environment, and that it is unlikely that agricultural use of streptomycin has caused any of the existing streptomycin resistance in clinical settings.

Cross-randomization The treatment screens were accompanied by a captioned photo of the respective president. We cross-randomized whether this was their official White House portrait, or a photo of them shaking hands with their corresponding Administrator of the EPA. While the latter is a more realistic representation of what might accompany information in the real world (e.g., in a news article), it also makes salient other differences between the administrations beyond the party and president, such as the demographic composition of the administration. Cross-randomizing allows us to determine whether this drives the results. We also cross-randomized whether the EPA is mentioned explicitly, or is instead referred to as "the relevant regulatory agency". We do this to address concerns that the EPA may be perceived as being at the extreme of politicized governmental agencies. Anonymizing the EPA allows us to see if the treatment effect differs when respondents can only infer the identity of the agency based on the information.[31]

Final information screen Prior to the outcomes section, all groups (including the Control group) were given information about citrus production in the United States. The information was provided alongside a map highlighting California, Arizona, Texas and Florida, the states which account for almost all commercial citrus production in the country.

3.1.3 Sample size and balance

A total of 5,566 individuals passed our initial attention check and were assigned a treatment group. Of these, 5,496 (98.7%) completed the information provision sections and the targeted 5,470 (98.3%) completed all outcome questions. Overall, we had 1,103 out of 1,111 (99.3%) assigned to the control group complete all questions; 2,180 out of 2,223 (98.1%) assigned to the Biden group completed all questions; and 2,187 out of 2,232 (98.0%) assigned to the Trump group completed all questions. For each outcome discussed below, we use the full sample of individuals that answered the associated questions, even if they did not complete

[31] Other agencies that respondents might infer as the relevant agency include the United States Department of Agriculture and the Food and Drug Administration.

all other outcome questions.

In the online appendix, we present the balance on covariates across the three experimental groups. We report that for the included variables there are no differences between the three groups at the 5% significance level, and only two out of fifteen that are marginally significant at the 10% significance level (the proportion of female respondents and the proportion that have completed a four year college degree).

To validate the pre-screener question used in recruitment, we asked respondents the extent of their agreement with the statements (i) "I support the Democratic Party for Congress", and (ii) "I will vote for Donald Trump if he is on the ticket in the 2024 presidential elections." They were asked to provide their agreement on a scale from 0 to 100, with 0 indicating "Strongly disagree" and 100 indicating "Strongly agree". The results suggest that the sample is strongly Democrat, with the average Congressional support equal to 87.5 out of 100, and the average support for Trump equal to 5.2 out of 100.

3.1.4 Outcomes

The final section of the survey asked questions relating to the outcomes of interest. We pre-registered two primary outcomes for survey 1. The first is the proportion of a bonus payment donated to United States Public Interest Research Group (USPIRG). All participants were offered a bonus of $1.00, of which they could donate a portion (from $0 to $1 in increments of $0.01) to USPIRG. On this screen, we described USPIRG as a nonpartisan, non-profit organization that has been advocating for public health, safety and well-being for 40 years. We stated that USPIRG "advocates against streptomycin spraying on citrus crops" since they were a co-petitioner in the legal challenge to the policy. This makes clear to respondents that the donation is not simply a campaign donation that ends up in partisan hands, but rather indicates their desire to outlaw the spraying via supporting an NGO at real economic cost to themselves.

The second primary outcome from survey 1 is a policy support index based on agreement with the following four statements about the authorization to spray streptomycin on citrus crops: (i) "The policy is safe as it is endorsed by the relevant government agency," (ii) "The policy has negative consequences on people's health," (iii) "I think that antibiotic spraying of citrus crops should be outlawed," and (iv) "I support the policy as it helps protect the economy with no major risks involved."[32] Answers were provided on a scale

[32]The statements were shown in a randomized order, along with an attention check question.

from 0 ("Strongly disagree") to 100 ("Strongly agree"). We constructed the index by first standardizing the scores within each statement, and multiplying by -1 for statements that indicate disagreement with the regulation. The index is the sum of these four standardized, sign-adjusted scores. The order in which these two primary outcome questions were displayed was cross-randomized.[33]

We also pre-registered three secondary outcomes for survey 1. The first outcome was a trust index, constructed in the same was as the policy index but using the following four statements: (i) "I trust the EPA which determined that the policy is safe," (ii) "The arguments provided by the opponents of the policy were convincing.", (iii) "The scientific evaluation conducted by the EPA was thorough and I trust it," and (iv) "The opponents of the policy are scaremongering." Recall that whether the EPA was explicitly named or was instead replaced by "the relevant regulatory agency" was randomized. Second, we asked respondents what percentage of Republicans, and of Democrats, support the spraying of citrus crops. We incentivized this question by offering a bonus of \$0.25 per question if their answer was within 3 percentage points of the "true value" which we took from prior pilot surveys. Third, for a subsample of respondents (15%), we asked a question on planned consumption of citrus products in the upcoming month. Specifically, we asked the likelihood that they purchase orange- or citrus-based products, on a scale from 0 ("Very unlikely") to 100 ("Very likely"). We also asked this subsample the extent to which their answer to the planned consumption question was affected by concerns about the direct health consequences of consuming citrus or contributing to antibiotic resistance (internality vs. externality).

3.2 Survey 2

3.2.1 Recruitment

For survey 2, we used Prolific to recruit individuals who took survey 1, completed all the information and treatment screens, and who at least sometimes consume orange juice.[34] This left us with a pool of 4,581 respondents. Eligible respondents were first invited to take survey 2 on the third day after the day they took survey 1, so that the first responses to survey 2 were collected on April 18, 2024. The invitation remained open for 15 days, hence

[33]Specifically, we randomized the order of the donation question on the one hand, and a block containing two screens – first the regulation support questions and second the trust questions (described below).

[34]We exclude never-consumers to avoid floor effects, which would make downward treatment effects in WTP difficult to measure when the initial level of WTP is close to 0. The classification of never-consumers is the same as we use to stratify the treatment group allocation. This sample restriction was pre-registered.

no responses were collected after June 1.

3.2.2 Sample size and balance

Out of the 4,581 eligible respondents, ultimately 4,025 (87.9%) started survey 2, with 4,000 (87.3%) completing the primary outcome questions. By treatment group, we had 820 out of 925 (88.6%) eligible from the Control group complete the outcome questions; 1,577 out of 1,822 (86.6%) for the Biden group; and 1,603 out of 1,834 (87.4%) for the Trump group. The differences in attrition rates between the three groups are not statistically significant (p=0.280). In the online appendix, we report the balance of covariates between treatment groups among those who started survey 2. We observe no evidence of imbalance among those who took up survey 2 at the 5% significance level. Only one is significant at the 10% level ($\geq$ 4 Years College).

3.2.3 Study flow

Much of the design of survey 2 is focused on achieving obfuscation so that treatment groups are not differentially affected by experimenter demand. Beginning from the advertisement that appeared on Prolific to recruit participants to the study, survey 2 was framed as a grocery store marketing survey, with a casual and engaging tone, and used the University of Florida (UF) logo. The Qualtrics URL that appeared while respondents take survey 2 maintained the UF association, beginning with "https://uffred.qualtrics.com...". By comparison, survey 1 was labeled as a public policy issues survey, was more formal and fact-oriented, and the URL was associated with the University of Warwick (UW): "https://warwick.co1.qualtrics.com...". In survey 2, we used a UF Institutional Review Board consent form, while in survey 1 we used the equivalent from UW. At all stages, and in particular in the consent forms, we took steps to ensure that we remain truthful, and that only the essential information was omitted.

In addition to distinguishing the institution associated with the research, we took measures within the body of survey 2 to obfuscate its association with survey 1. First, despite collecting demographics in survey 1, we again asked basic demographic questions in survey 2, as respondents would expect to see. This involved asking some questions again (e.g., age) but in different ways (10 year bands c.f. exact age in years), and asking additional questions that might be relevant to a grocery store marketing survey. For instance, we asked about entertainment and news media consumption, where respondents are likely exposed to advertising.

We then asked a series of decoy questions about preferred brands, advertisement recall, and brand recognition. There were 8 decoy questions in total, with up to 5 sub-questions each. Amongst these was an additional attention check question.

3.2.4 WTP outcome

The primary pre-registered outcome of survey 2 is the respondent's WTP for an $8 product-specific digital gift card for orange juice. We told respondents that the gift cards were for purchases from Amazon.com, valid for 12 months, and would be provided via a link immediately (if they are to receive one). We emphasized that they would not need to share any PIIs (such as email address) with us, and that it could be applied directly to their Amazon account. We informed respondents that the gift cards could only be used on the selected type of product. To maintain obfuscation, we informed respondents that the specific product was randomly drawn from the products in the previous section. Specifically, it was Tropicana orange juice with probability 0.99 and Pantene shampoo with probability 0.01, but respondents were not informed of these probabilities. We also told participants that, in the event that the specific product is not available, similar products can be purchased (in the case of orange juice, they will have a selection of other citrus-based juices and drinks). The exact list of products made available through the gift card is controlled by the researcher, with eligible products specified by their Amazon Standard Identification Number (ASIN).

To elicit the WTP for the gift card, we used a multiple price list (MPL) approach, which involved many binary comparisons between the gift card and a varying cash bonus (to be paid through Prolific). Prior to these binary comparisons, we told respondents that after answering the series of questions, a cash value from $\{0.50, 1.00, ..., 8.00\}$ would be randomly selected with equal probability. If their answers indicated that they prefer the gift card, they would receive the gift card, otherwise they would receive the randomly drawn cash amount. We implemented a basic algorithm that allowed us to determine the participant's WTP to a level of precision of $0.50 within four to five questions.[35] When respondents have a WTP over $7.50, we asked them for the specific cash bonus that would make them equally happy as receiving the gift card. If their value is below $0.50, we asked if they prefer $0 or the gift card, however this last question is not incentivized, since they will never be offered a cash

[35] In doing so, we assume monotonicity in the underlying preferences, i.e., if they prefer $\$x$ to the gift card, then they also prefer $\$y > x$ to the gift card. We also assume their WTP is non-negative since there is free disposal.

bonus of \$0. The final outcome variable codes the WTP as the midpoint of the 0.5-wide interval, or their exact reported valuation if over \$7.50, capped at \$8. We checked that respondents understood the essential aspects of the gift card and the multiple price list task using comprehension questions.

3.3 Sample Representativeness

Our target population for recruitment was self-identifying Democrats. While we were able to filter participants on this dimension, our resulting sample was not necessarily representative of the broader population of Democrats. Table 1 compares key demographics for the sample of participants who completed survey 1 with values representative of the population of Democrats, taken from the American Trends Panel Wave 117 (Pew Research Center).

Table 1: Sample Representativeness

	Sample	Pew
Age	40.322	46.868
Black	0.190	0.214
White	0.664	0.595
Asian	0.114	0.067
Hispanic	0.091	0.195
Female	0.604	0.575
High School	0.995	0.935
Four Year Degree	0.618	0.407

Notes: The table presents the means of demographic variables for the sample of participants who were assigned a treatment group, and with representative values calculated from the Pew Research Center's American Trends Panel, Wave 177 (2022). We report the following covariates in order: (1) age, in years (*Age*), (2) a dummy equal to one if they are black/African American (*Black*), (3) a dummy equal to one if they are white/European American (*White*), (4) a dummy equal to one if they are Asian/Asian American (*Asian*), (5) a dummy equal to one if they are Hispanic or Latino (*Hispanic*), (6) a dummy equal to one if a person is female and zero otherwise (*Female*), (7) a dummy equal to one if a person has completed high school (*High School*), (8) a dummy equal to one if they have completed a 4 year degree or a post-graduate degree ($\geq$ *4 Years College*).

To account for the differences, we also present our main results using sample reweighting as a robustness check. Specifically, we generated weights using raking (proportional fitting) to match the representative marginal distributions on key demographic categories,[36] after dropping individuals who did not complete survey 1. This provided a single representative sample for all survey 1 questions except for planned consumption, which was only shown to a subset of respondents. For this outcome, we repeated the process among that subset.[37]

[36]Specifically: age categories (18–29, 30–49, 50–64, 65+ as available in the American Trends Panel data), gender (male, female, non-binary/other), race/ethnicity (White, Black, Asian, Hispanic) and education (completed high school, completed 4 year college degree or more).

[37]Note: we omitted the high school completion dimension due to lack of observations in this subsample.

For the follow-up survey, our target population was self-identifying Democrats who consume orange juice at least sometimes. To generate appropriate weights, we calculated representative marginal distributions for demographics from our own sample of orange juice consumers using the previously calculated weights.

4 Results

Sections 4.1 and 4.2 discuss the results of the experiment outlined in Section 3, focusing on outcomes from survey 1 and survey 2 respectively. Section 4.3 describes additional heterogeneity analysis. Lastly, Section 4.4 provides supporting results, including the analysis of salience of the association between the president and expert regulators in US media reporting (Section 4.4.1), and robustness checks.

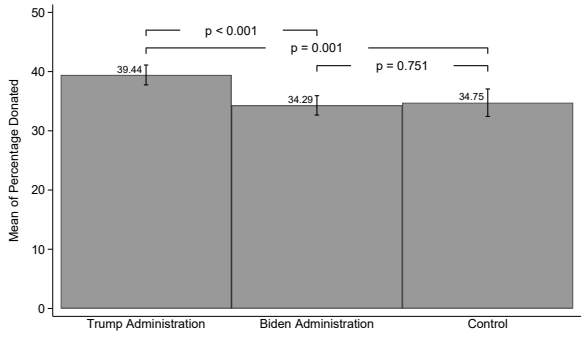
4.1 Survey 1 Main Results

Figure 2 summarizes the main results of survey 1.

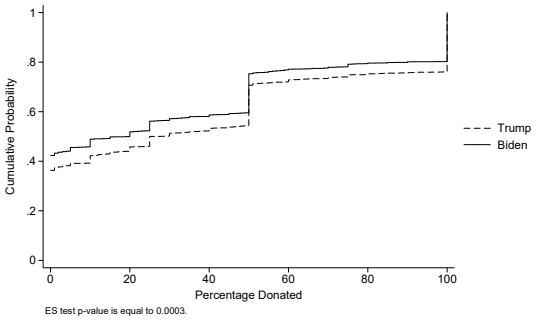
In Figure 2a, we report the mean percentage of donations to USPIRG, an organization that opposes the policy of streptomycin spraying on citrus crops, by treatment group. Despite the EPA's independence and status as an expert agency, we find that out-group presidential administration has a significant effect on opposition to the regulation as measured by donations to USPIRG. Learning about the EPA's support during Trump's administration instead of Biden's administration increases donations by 15% ($p<0.001$) among Democrats. Importantly, the donations carry a real opportunity cost. Hence, the result showcases that political polarization, operating through trust in expert regulation, has potential to affect economic decision making.

Further, Figure 2b shows the empirical distributions of donations for the Trump and Biden groups. We observe that the empirical distribution of donations for the Trump group dominates that of the Biden group in the first-order sense. At every level of donation, the empirical probability of donating an amount equal or higher than that level is greater for the Trump group than for the Biden group. We reject the null hypothesis that the two distributions are equal at the 1% significance level using the Epps-Singleton characteristic function test (Goerg and Kaiser, 2009), which yields a p-value of 0.0003.

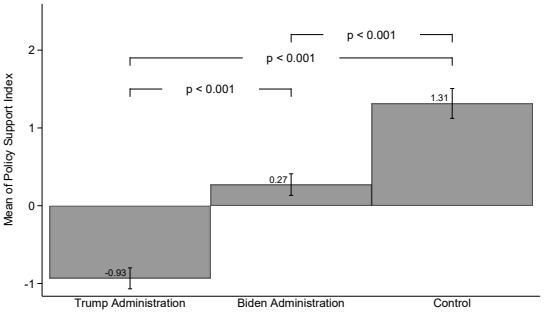
Finally, Figure 2c reports the mean value of the policy support index by treatment group. In line with the donation results, we find that learning about the EPA's support of the policy



(A) Donations



(B) Cumul. Distr. of Donations



(C) Policy Support Index

Figure 2: Main Outcomes Survey 1

Notes: Panel A depicts mean percentage of the bonus payment donated to United States Public Interest Research Group (USPIRG), an organization that opposes the streptomycin spraying policy, by treatment group. We also present the 95% confidence intervals for the means. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump; for the Control group, this information is not presented at all. We report the p-values for pairwise regressions of the proportion of the bonus payment donated to USPIRG on a dummy equal to one if a person was assigned to one treatment group instead of the other. In all cases, p-values were computed using robust standard errors. **Panel B** depicts the empirical cumulative distribution functions of the percentage of the bonus payment donated to USPIRG for the Trump and Biden groups. We report the p-value for the Epps–Singleton characteristic function test of equality of two distributions (denoted ES). **Panel C** depicts the mean policy support index, calculated as the sum of the sign-adjusted standardized scores to four policy support questions, by treatment group. We also present the 95% confidence intervals for the means. We report the p-values for pairwise regressions of the policy support index on a dummy equal to one if a person was assigned to one treatment group instead of the other. In all cases, p-values were computed using robust standard errors. The figure is based on a sample of N=5,492 individuals who completed the donation task (1,107 for Control, 2,188 for Biden and 2,197 for Trump), and a sample of N=5,489 who completed the policy support questions (1,107 for Control, 2,187 for Biden and 2,195 for Trump). The order in which the donation and policy questions appeared for respondents was cross-randomized with equal probability.

under Trump's administration negatively and significantly affects support for the regulation as measured by our index. Unlike the donation outcome, we also find that learning about the EPA's support under Biden's administration (along with arguments in opposition to the policy) has a net negative effect on support relative to the Control. We discuss these results in more detail below.

Taking together the results on regulation support and NGO donations, we document risks associated with both rising affective polarization, manifesting as distrust towards out-party

institutions and experts, and further politicization of the civil service in light of the likely roll-back of Pendleton Act protections. Expert agencies regulate key markets, including food and medicine, and the consequences of partisan opposition to vital regulation in these areas can have long-lasting welfare consequences, especially in healthcare contexts.

4.1.1 Donation Outcome

We now look at the donation outcome in more detail. We report that, for the group that was provided information of the EPA's support of streptomycin spraying under Trump's administration, the proportion of the bonuses donated to USPIRG was 39.44%. For the group informed about the EPA's support while under Biden's administration, this was 34.29%. The difference when provided information regarding oversight by Trump (the out-group president for Democrats) relative to Biden, while holding the scientific rationale of the policy constant, was 5.14 pp ($p<0.001$), or 0.13 SD. This is equivalent to a relative increase of 15.0% in the proportion of the bonus donated to USPIRG. Since the bonus from which participants could donate was equal to \$1, this is equal to an average increase of 5.14 cents. Given that this is an incentivized outcome, the results indicate that participants are willing to give up real resources to oppose the policy when the agency's scientific defense comes during an out-group administration compared to an in-group administration, even though the content of that defense is identical.

In contrast to the policy support outcome, we find no evidence of an effect of perceived in-group oversight (combined with discussion of opposition arguments) relative to the Control for donations ($p=0.751$). This suggests that while those in the Biden group report lower support for the policy, the in-group oversight largely counters the salience of health concerns once outcomes are incentivized.

Panel A of Table 4 reports results from regression analysis for treatment effects on the donation outcome, using pairwise group comparisons. Columns (4)–(6) show that the estimates are largely unchanged in magnitude and significance when adding controls. The results remain significant when representative sample weights are also used (columns (7)–(9)).

4.1.2 Policy Support Outcome

For the Trump group, the average of the policy support index was -0.934, while for the Biden group, it was 0.272. This equates to a difference of -1.21 ($p<0.001$), or -0.36 SD. This result reinforces that Democrats form very different positions on a science-based policy

when learning that the scientific evidence was provided during the out-group administration instead of the in-group administration, even when it is the same evidence coming from the same government agency. Panel B of Table 4 shows the associated regression results. Again, the magnitude and significance of the estimates are robust to controlling for age, sex and strata fixed effects, and additionally when using representative sample weighting.

The policy support index is generated from the answers to four individual questions. Figure 4 reports the coefficients for the Trump treatment relative to the Biden treatment for each of these component questions. Note that the outcome values have been normalized to have mean 0 and standard deviation 1, but have not had their signs adjusted. For each question, those in the Trump group express less support for the policy on average compared to the Biden group. The component-wise estimates are all similar in magnitude, suggesting no particular question is driving the overall index result.

Using the question "I think that antibiotic spraying of citrus crops should be outlawed" specifically, we can quantify the change in support for the policy by taking an answer below 50 to mean they support the policy (i.e., they do not agree that it should be outlawed). We find that 28.62% of those in the Biden group support the spraying, while for the Trump group it is only 21.09%. That is, out-group oversight results in a 26.31% decrease in the level of support for the regulation relative to in-group oversight.

4.1.3 Trust (Secondary Outcome)

In addition to the above results on regulation support, Table 2 summarizes the results on trust in the EPA's evaluation for the Trump and Biden groups. The average value of the trust index for the Trump group was -0.55, while for the Biden group it was 0.56. The difference is -1.11 ($p<0.001$), equivalent to -0.37 SD. This finding provides a strong motivation for our channel of interest—the perception of out-group partisan oversight of independent civil service reduces trust in expert regulators. The result is robust to including controls and using representative sample weights.

4.1.4 Other Secondary Outcomes

We also analyze a number of other secondary outcomes elicited in survey 1. First, we report significant treatment effects on the beliefs that participants hold about Republican and Democrat support for the antibiotic spraying. Figure 5 presents the results. The respondents anticipate support to be higher for in-group partisans (with respect to the administration

Table 2: Trust Index

	(1) Trust	(2) Trust	(3) Trust
Trump	-1.108***	-1.111***	-1.205***
	(0.0888)	(0.0847)	(0.161)
Constant	0.555***	1.774***	1.656***
	(0.0637)	(0.207)	(0.452)
Observations	4380	4380	4348
Controls	No	Yes	Yes
Reweighted	No	No	Yes
p-value (Treatment)	< 0.0001	< 0.0001	< 0.0001
Mean dep. var.	0.0000	0.0000	-0.0633

Notes: The table reports regression results with the trust index as the dependent variable. The sample is restricted to those who were assigned to either the Trump or Biden groups. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump. The Control group were not asked the trust questions. In column (1) we regress the dependent variable on a dummy equal to one if the individual was assigned to the Trump group. column (2) presents the same specification as column (1) but with the addition of controls. The following controls were included: age, number of adults (over 18) in the household capped at 10, number of children in the household capped at 10, a measure of a person's relative importance of universalist vs. communal values based on an abridged Moral Foundations Questionnaire and calculated according to Enke (2020), fixed effects for gender categories (male, female, non-binary, other and refused answer), a dummy equal to one if they are white/European American, a dummy equal to one if they are black/African American, a dummy equal to one if they are Hispanic or Latino, a dummy equal to one if they are Asian/Asian American, a dummy equal to one if a person has not undertaken at least some college study, a dummy equal to one if they have completed a 4 year degree or a post-graduate degree, a dummy equal to one if they have a religion or belief, and strata fixed effects. Column (3) presents the same specification as column (2), but uses the representative sample weights and excluding from the sample anyone who did not complete all the outcome questions in survey 1. Robust standard errors are in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

in power when the EPA supported the scientific analysis) and lower for out-group partisans. Specifically, the Biden group believes that 52% of Democrats support the policy on average, while the Trump group believes just 34% of Democrats support the spraying—they expect other Democrats to share their negative response to the regulation. Similarly, respondents in the Trump group believe 77% of Republicans support the spraying, while the estimate is 64% for the Biden group. Together, this shows a strong perception among respondents that support for expert regulations is polarized by perceived partisan oversight. Once again, it is important to remember that the civil service is independent and expertise-driven, so we should observe no impact of the administrations' partisanship. The results on beliefs, where participants were incentivized for accuracy, strengthen the primary results discussed earlier.

We also asked a random subsample of 15% of participants about their plans to consume citrus in the following month. We report no significant difference between the Trump and Biden groups (p=0.386), while the reported probability of consumption for the control group was significantly higher than both Trump and Biden groups by 7.13 (p=0.034) and 9.54 (p=0.005) respectively. Table 5 provides further regression results with the magnitudes of treatment vs. Control effects remaining consistent in direction after controlling for covariates

and further using representative sample weights, though the estimates are noisy. The null difference between Biden and Trump groups remains across specifications. While these results should be interpreted cautiously due to the reduced power in our subsample, they suggest that the reduction in trust generated by out-group (vs. in-group) oversight of the EPA may not translate into changes in demand, even though making health concerns salient does have a significant negative effect on the consumption plan. The latter finding showcases that there is room for finding the impact of distrust due to perceived partisan oversight of regulatory agencies on product demand.

Interestingly, when asked about factors driving their consumption plan, a Trump-Biden split re-emerges. We asked the same subsample of respondents the extent to which they agree with the statements "I am concerned about the health effects of directly consuming citrus products" and "I am concerned about contributing to antibiotic resistance in bacteria" when considering whether to consume citrus, on a scale of 0 ("Strongly disagree") to 100 ("Strongly agree"). Those in the Trump treatment group claim to be more concerned about both their own health with mean agreement 7.84 points higher than for the Biden group ($p=0.002$) and also more concerned about contributing to antibiotic resistance by 8.28 points ($p<0.001$). This effect is easily detected with the smaller subsample. The results suggest that while respondents may not be inclined to actually change their demand for citrus, they ex-post rationalize their planned consumption differently, showing differential awareness of the risks. This is in line with the overall pattern of results that we find—distrust has real impacts but may not translate into market demand, as it is difficult to reduce habitual consumption.

4.2 Follow-up Survey Main Results

In Table 6, we report the mean willingness to pay (WTP) for a digital Amazon gift card that could only be redeemed for citrus juice products like orange juice, by treatment group. Despite being powered to detect effects as small as 0.09-0.1 SD, we find no significant overall effect of out-group presidential administration on the WTP for the gift card, whether comparing to in-group oversight ($p=0.211$) or the Control group ($p=0.545$). However, we do find significant evidence of heterogeneity along the (pre-registered) dimension of baseline consumption of orange juice, with more negative effects for those with lower baseline consumption (and thus likely higher demand elasticity). This heterogeneity is particularly strong among those who took the follow-up soon after the first survey. We discuss these

results in more detail below.

4.2.1 Willingness to Pay

We find no evidence of an overall effect of out-group presidential oversight of the EPA when it defended the antibiotic spraying policy on the WTP for citrus products. Specifically, Table 6 shows that the average WTP for an $8 Amazon gift card for orange juice is $1.69 for the Trump group, $1.61 for the Biden group, and $1.64 for the Control group. Although the Trump group is the highest, the mean is not statistically different from the Biden (p=0.211) or Control (p=0.545) groups. The 95% confidence interval for the Trump vs. Biden effect excludes negative effects larger than 4.7 cents. Similar to the donations outcome, there is no net effect of in-group presidential administration plus opposition arguments compared to the Control (p=0.663). The null effects are robust to including covariates (columns (4)–(6)) and to further using representative sample weights (columns (7)–(9)).

Some consumers of orange juice are habitual and unlikely to change their demand in the face of our intervention. Anticipating this possibility, we pre-registered to test the heterogeneity of the WTP with respect to baseline consumption of orange juice. We categorized respondents into low, medium and high baseline consumers, expecting higher consumers to be less elastic.[38] Among those who answered the WTP questions, 31.75% were low consumers, 43.67% were medium consumers, and 24.58% were high consumers.

Figure 7 presents the net treatment effect of out-group presidential administration on the WTP by demand elasticity. Specifically, Figure 7a presents the Trump effects relative to Biden, and Figure 7b presents the Trump effects relative to Control. Associated regression results are reported in Table 7. We report that elastic (low baseline) consumers experience a negative effect of out-group vs. in-group oversight on the WTP, valuing the gift card by $0.07 less on average. Importantly, this effect is significantly lower (i.e., more negative) than for inelastic (high baseline) consumers by $0.32 (p=0.084). This result is robust to controlling for a number of covariates (column (4) of Table 7). Medium consumers place roughly in between the high and low level consumers—the effect for elastic consumers is $0.16 lower than it is for medium consumers, although this smaller difference is not statistically significant (p=0.261). Pooling medium and high consumers together also results in statistically

[38] In the initial demographics questions of survey 1, respondents were asked how often in the past month they consumed orange juice—those who answered "Never" were categorized as low, those who answered "Once or twice a month" or "Once a week" were categorized as medium, and those who answered "A few times a week" or "Every day" were categorized as high.

significant heterogeneous effects compared with the low consumers (column (6) of Table 7).

Figure 7b demonstrates a similar pattern when comparing the effect of the Trump treatment to the Control. The low consumption group has a negative effect of out-group partisan oversight of -$0.16. This is substantially lower than the high group by $0.34, and is marginally insignificant (p=0.130). Pooling medium and high consumers together does result in a significant difference in effect compared with the low group at the 10% significance level, even when controlling for covariates (columns (5) and (7) of Table 7). Our heterogeneity results also indicate that our information intervention is sufficiently strong to impact demand—as people with different past consumption react *differentially* to treatment. This suggests that the overall null result is not simply due to insufficient strength of the intervention. This is in line with our expectations, as the existing evidence suggests that people are very responsive to concerns about food safety (e.g., Lusk et al., 2006; Dahlhausen et al., 2018).

In the online appendix, we presents the treatment effects by baseline consumption, restricting the sample to those who took the follow-up on the first possible day (3 days after survey 1). This accounts for 63% of people who took the follow-up. This subset is of interest because the information from survey 1 is most fresh in their minds. This group is also of interest as there was a risk that following the first survey, participants may have purchased orange juice due to its salience, thus dampening their demand in the follow-up. While we endeavored to address this by making participants aware that the Amazon voucher was valid for 12 months, rather than being required to be used immediately, the early-uptake subset are least likely to have been affected by this since they had less opportunity to purchase orange juice. We report that for this subset of respondents, the out-group vs. in-group effect remains negative for the elastic consumers and significantly lower than the effect for the inelastic high consumers (p=0.027). Likewise, in comparison to the Control group, out-group oversight had a net negative effect of the elastic consumers and was significantly more negative than the inelastic consumers at the 10% level (p=0.082).

4.3 Additional Heterogeneity Analysis

In addition to the heterogeneity of the WTP by baseline consumption discussed above, we also analyze whether (1) our other economic decision outcome (NGO donations) exhibits similar heterogeneity patterns, and (2) whether there is evidence that trust—crucial for our proposed channel—also varies along this dimension.

Figure 8 presents the mean donations to USPIRG by treatment group, separately for each level of baseline consumption (excluding the never-consumers who were not invited to the follow-up due to their zero demand for citrus products). The figure reveals that the pattern observable in the WTP results—that elastic consumers have a more negative response to out-group partisan oversight—replicates for donations to an organization opposing antibiotic spraying of citrus crops. For low (and thus elastic) consumers, in-group partisan oversight leads to a 7.9 pp increase in the share of bonus donated by respondents, as compared to in-group partisan oversight ($p<0.001$). This is a very large increase of 26%, indicating that elastic consumers are also very responsive to out-group presidential administration when making other economic decisions related to the regulation, not just in regards to demand for the regulated product. By contrast, the treatment effect for high consumers is 2.4 pp which is also substantially lower in a relative sense, representing change of just 6%. The effect for medium consumers places in between these values, with an absolute magnitude of 4.9 pp or a relative magnitude of 13.7%.

These results, which indicate that more elastic (less habitual) consumers respond more with charitable giving to stop the policy under out-group oversight, are in line with the more negative WTP effects for the same group of consumers. This suggests by comparison that inelastic, high consumers are unwilling to shift their behavior. Indeed, they may also be unwilling to shift their beliefs, by engaging in self-persuasion (Schwardmann et al., 2022).

We do not, however, find evidence of differential impacts of out-group (vs. in-group) partisan oversight on trust in the EPA. In the online appendix, we present the mean of the trust index by treatment group and by baseline consumption level. We demonstrate that the effect is statistically significant and of similar magnitude for each consumption bin. To reinforce this, Table 8 reports the interaction terms of the primary outcomes (including trust) along several different dimensions of heterogeneity, including baseline consumption of orange juice. Column (3) of Table 8 shows that there are no statistically significant differences in the effect across consumption bins. Thus, our channel of trust in the EPA appears similarly active irrespective of elasticity of demand for orange juice, despite the fact that economic decisions exhibit heterogeneity in this dimension. This suggests that inelastic consumers are not simply more trusting of the out-group administration, but are less willing to *alter* their economic behavior in response to that information.

Lastly, Table 8 reports additional angles of heterogeneity that we specified in our pre-registration. We find that moral universalism is a descriptive moderator for the treatment

effect on regulation support and trust, with more universalist individuals having stronger negative effects of the out-group presidential administration. We also report that gender is a moderator for NGO donations, with higher donations in the Trump group driven mostly by women.

4.4 Supporting Analysis and Robustness

4.4.1 Media Reporting

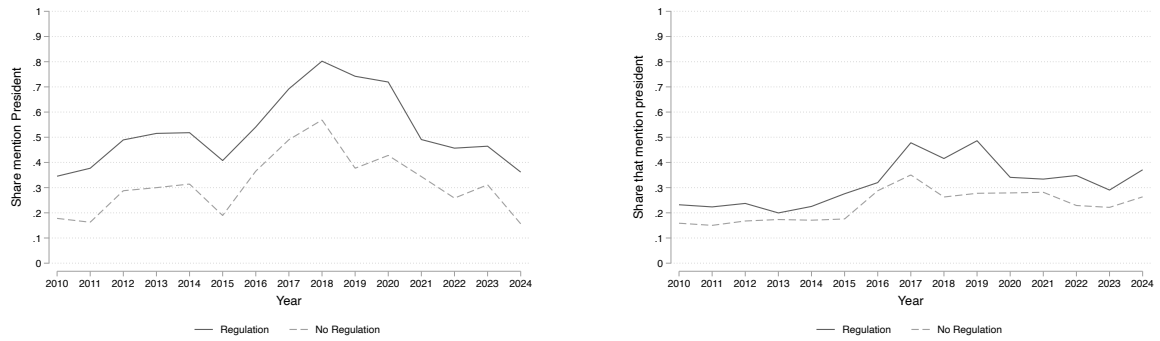
As previously highlighted, many of our results indicate that despite the intended independence of expert regulatory agencies, partisanship of the presidential administration affects trust and support for regulation and even affect relevant donation decisions. Thus, it is natural to inquire about the reasons for the *perceived* partisan oversight of the civil service. We explore one possible explanation—that news reporting makes the oversight salient.

We construct measures of news coverage of US agencies using data from the GDELT Television Archive. The archive contains transcripts of major US and international broadcast news networks organized into 15 second intervals. The intervals are derived from raw closed captions from the Television News Archive, with coverage starting in 2009. We restrict our analysis to Fox News, CNN, and MSNBC, which have complete coverage from 2009 to 2024. Using the GDELT 2.0 TV API, we conduct keyword searches for all intervals that contain the name and/or acronym of the following agencies: (1) independent executive agencies, (2) independent regulatory agencies, (3) executive departments, and (4) agencies under executive departments.[39] For each snippet, the query returns the text from the interval, the station name, show name, and date that the show was aired. Because each snippet only contains the text of 15 second intervals, we combine snippets into news segments at the agency-station-show-date level. Using the interval text, we construct two binary measures of whether a segment contains a reference to: (1) new or existing regulations and (2) the current or previous presidential administrations. Limiting the sample to the top twenty agencies with the highest number of mentions, we identify 456,051 snippets and 167,765 segments in total. Among these segments, 33,260 contain a reference to a new or existing regulation and 52,681 contain a reference to the current or previous presidential administrations.

We show that in 37% of cases where a regulation is mentioned, a presidential administration is also named. The proportion is 40% for executive agencies and 34% for independent

[39]We exclude the Department of Defense along with its sub-agencies and service branches.

agencies. Since we require both to be mentioned within just 15 seconds, these are very high proportions. The share for the EPA, the agency relevant to the experiment, is even higher at 53%. The results by individual agency are reported in column (1) of Table 3. For completeness, column (2) reports the likelihood that the administration is mentioned during segments where an agency is mentioned but no regulation is discussed. Furthermore, Figure 3 shows the likelihood of mentioning the presidential administration when reporting on regulation over time (solid line). The likelihood remained fairly stable in the last 15 years, with a peak during Trump's presidency. In the online appendix, we also demonstrate that the trends do not depend on the political leaning of the TV station, with Fox News, CNN, and MSNBC data showing similar patterns. Taking all of the results together, we find that the association between the president and expert regulators in media reporting is considerably salient.



(A) EPA (B) TOP 20 AGENCIES

FIGURE 3: TRENDS IN TV DISCUSSIONS OF US AGENCIES

Note: We use the GDELT Television Archive dataset of transcripts of shows on three US news networks (Fox News, CNN, MSNBC) organized into 15-second intervals. For each interval mentioning a regulation by an agency, we check whether it also mentions the presidential administration. Combining the intervals at the agency-station-show-date level, we report the likelihood that where regulation is mentioned, the presidential administration is also named (solid line). We also report the likelihood that the administration is named during segments where an agency is mentioned but no regulation is discussed (dashed line). **Panel A** shows the likelihood over time for regulation by the Environmental Protection Agency. **Panel B** demonstrates the same variable for the top twenty agencies with the highest number of mentions throughout the sample period.

4.4.2 Robustness

We consider a number of robustness checks to support the findings from our experiment.

First, as discussed in Section 3.2.2, we find no differential attrition both during survey 1 and in between the two surveys. Furthermore, there are no significant imbalances across treatment groups after accounting for dropout between the surveys. Second, throughout Section 4, we have highlighted that our results are substantially robust to reweighting ob-

Table 3: Presidential Administration and Expert Regulation in News

	Regulation		No regulation	
	N	President (%)	N	President (%)
Independent agencies	18024	34	33808	25
Federal Reserve	11857	32	12267	25
Environmental Protection Agency	3474	53	7237	34
Securities And Exchange Commission	682	23	3781	20
Federal Election Commission	329	37	2787	37
Federal Communications Commission	863	30	2224	24
Federal Trade Commission	290	16	1750	17
Small Business Administration	95	35	1675	24
Consumer Financial Protection Bureau	181	47	801	38
Federal Deposit Insurance Corporation	225	17	716	14
Social Security Administration	28	46	570	14
Executive agencies	15236	40	98787	25
Centers For Disease Control	3301	49	22571	29
Department Of Homeland Security	2136	60	20294	36
Internal Revenue Service	1676	52	16779	40
Food And Drug Administration	5019	31	11253	21
Health And Human Services	1396	53	11845	40
Alcohol Tobacco And Firearms	394	45	5525	13
Department Of Education	478	27	3897	23
Department Of Transportation	343	15	2795	11
Department Of Agriculture	251	26	2455	19
Department Of Labor	242	41	1373	25
All agencies	33260	37	132595	25

Note: We use the GDELT Television Archive dataset of transcripts of shows on three US news networks (Fox News, CNN, MSNBC) organized into 15-second intervals. For each interval mentioning a regulation by an agency, we check whether it also mentions the presidential administration. Combining the intervals at the agency-station-show-date level, we report the likelihood that where regulation is mentioned, the presidential administration is also named. We report these likelihoods in column (2) for 20 federal agencies with the highest number of mentions on MSNBC, CNN, and Fox News throughout the sample period. Separately, we report the likelihood that the administration is named during segments where an agency is mentioned but no regulation is discussed. The results are in column (4).

servations to make them representative of the target population, self-identifying Democrats in the US. The weights were generated to match the population's marginal distribution on the key demographic dimensions of age, gender, race and education.

One concern is that the EPA might be perceived as more politicized than other agencies, and hence not be representative of the trust effect that would occur in relation to other agencies. In the survey, we mitigated this by cross-randomizing whether the EPA was explicitly mentioned, or instead referred to generically as a regulatory agency. As the context surrounded food, medicines and diseases, the EPA is an unlikely candidate for this generic agency; the Food and Drug Administration or the Center for Disease Control and prevention are far more likely candidates to have responsibility. The heterogeneity results in Table 8 indicate no significant differences in treatment effect when mentioning the EPA explicitly, vs. referring to it generically as a regulatory agency, for any of our main outcomes.

Moreover, we do not find heterogeneous treatment effects by the type of photo used in

the information intervention (president with the EPA's head or president alone) on support for the regulation, trust levels, or NGO donations—the key outcomes for which we report an overall treatment effect.

Another concern is that some participants may think that spraying does not continue at the time they took the survey. This may be particularly important for the Trump group, due to the Trump administration preceding Biden. To address this, we highlighted in the survey text that streptomycin spraying was permitted to continue as of December 2023, which was not long before the survey took place and was considerably beyond the end of the Trump administration. When asked if spraying continues "until this day", almost 90% of respondents answered affirmatively.

5 Conclusion

Independent and executive regulatory agencies constitute a critical yet slightly peculiar element of the system of government. On one hand, their role is to enact regulations based on merit rather than political influence with legislation such as the Pendleton Act acting as a guarantee of their independence. On the other hand, they are nominally a part of the executive branch, headed by a partisan president, and facing increasing political pressure (including threats to remove their employment protections) that might lead to the perception of their politicization.

In this paper, we experimentally explore the role of trust in regulation as a potential mechanism through which rising political polarization can affect market outcomes. Importantly, our context is economically important with large and socially critical markets regulated by these agencies (such as food and medicine). Moreover, any relevant signals of partisanship—in-group vs. out-group presidential administration with nominal oversight over agencies—cannot be easily avoided. This distinguishes our work from previous research evaluating economic impacts of polarization, which were conducted in labor market or marketing settings, with firms or job-seekers being able to hide their partisanship with relatively little cost. In a pre-registered experiment with over 5,000 participants, we exploit an alignment in the way that the EPA during the Trump and Biden administrations defended the safety of spraying citrus crops with antibiotics to randomize the partisanship of the administration, holding the scientific arguments constant. We measure the treatments' impact on support for the regulation, trust in EPA's evaluation, as well as economic outcomes—donations to

an NGO opposing the regulation and demand for citrus products. As a result, our paper provides a novel test of polarization's potential to affect trust in institutions and economic outcomes in a highly consequential setting.

Our results contribute to the literature by offering three main lessons. First, we use TV transcript data to document that news channels make the association between presidential administration and expert agencies salient when reporting on regulation. This corroborates the relevance of perceived partisan influence over the agencies as a channel through which polarization affects market outcomes. Second, we experimentally demonstrate that having an out-group presidential administration during the time of regulation significantly reduces support for regulation and trust in the agency's scientific analysis. This outcome may have disastrous consequences in many contexts, including regulations pertaining to vaccinations, where polarization may increase vaccine hesitancy. This lesson also serves as a warning about consequences of a potential repeal of the Pendleton Act and similar regulations, without which the civil service will be perceived as more politicized.

Lastly, our third lesson is that political polarization has potential to affect economic outcomes. We demonstrate its impact on non-partisan donation behavior. However, we offer a caveat—polarization-induced distrust in regulation may not translate into demand for regulated products, especially for inelastic consumers, whose responses to the intervention were significantly different from those with high elasticity.

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A Figures

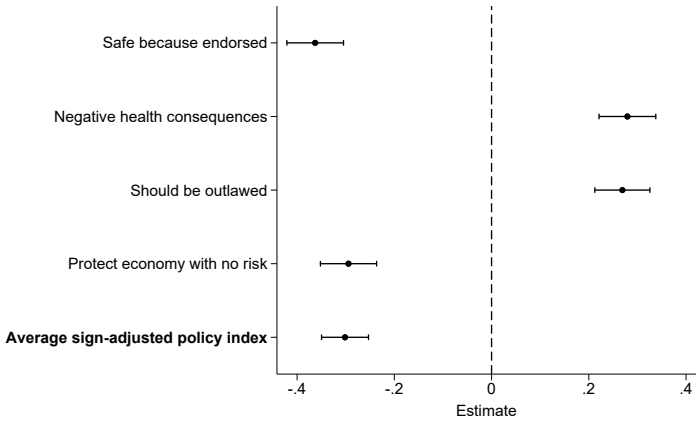
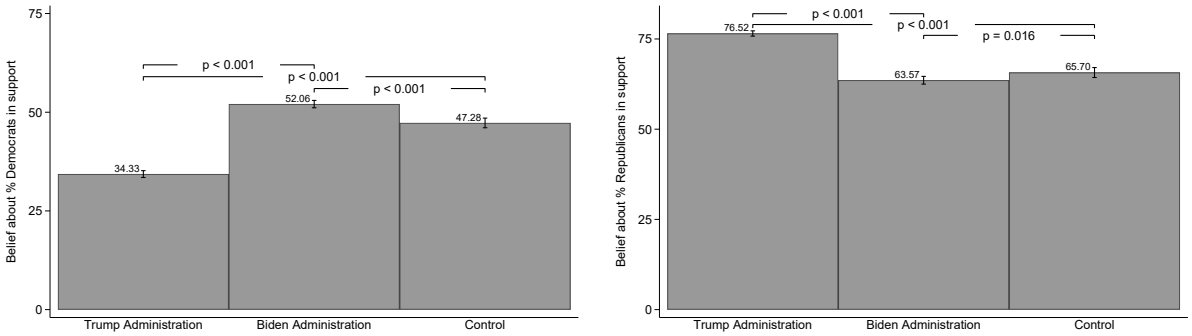


Figure 4: Policy Index Treatment Components

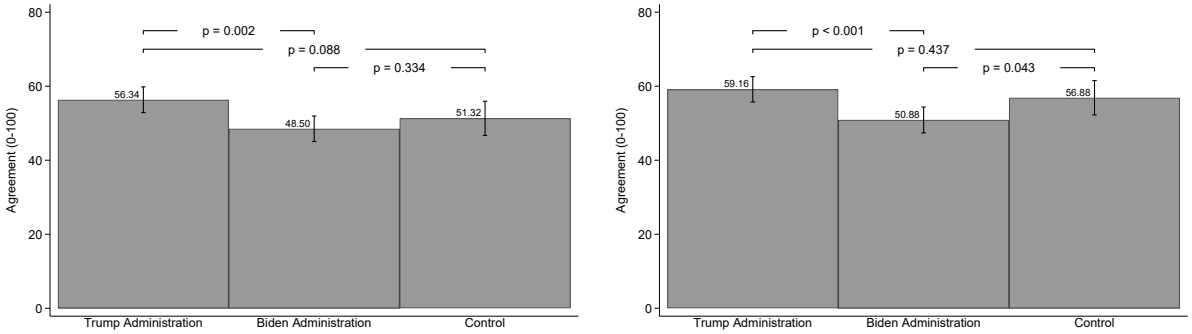
Notes: The figure presents the regression results for each component of the policy support index, restricting our sample to those assigned to either the Trump or Biden groups. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump. The Control group were not asked the trust questions. We regress the standardized score for each component on a dummy equal to one if they were assigned to the Trump group. For Average sign-adjusted policy index, we take the policy index as defined in the text and divide by 4 so that the scale is comparable to the individual components. We then plot the point estimate and 95% confidence intervals for the coefficient on the Trump group dummy.



(A) Beliefs about Democrats (B) Beliefs about Republicans

Figure 5: Beliefs about partisan support for policy

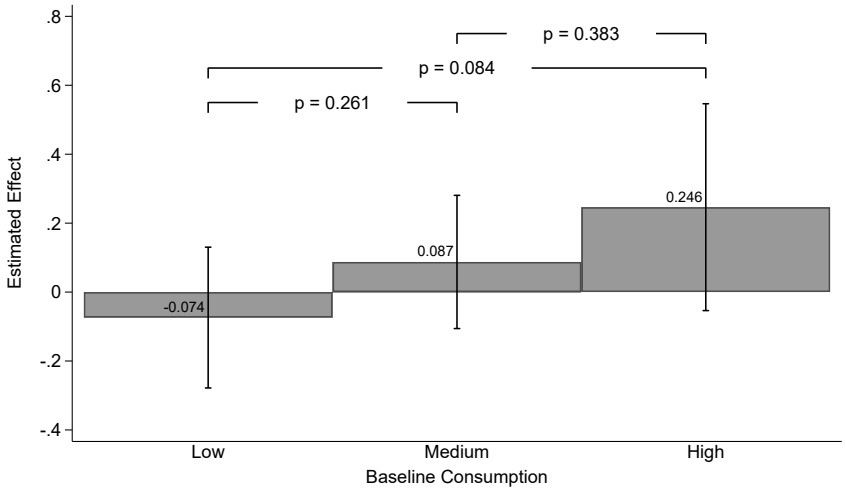
Notes: Panel A the mean response when asked what percentage of Republicans support "the policy of spraying citrus crops with antibiotics in order to fight citrus greening", by treatment group.The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump; for the Control group, this information is not presented at all. We report the p-values for pairwise regressions of the reported belief on a dummy equal to one if a person was assigned to one treatment group instead of the other. In all cases, p-values were computed using robust standard errors. **Panel B** is the same as Panel A, except respondents were asked what percentage of Democrats support the policy. The figure is based on a sample of N=5,492 individuals who completed the beliefs questions (1,106 for Control, 2,184 for Biden and 2,192 for Trump).



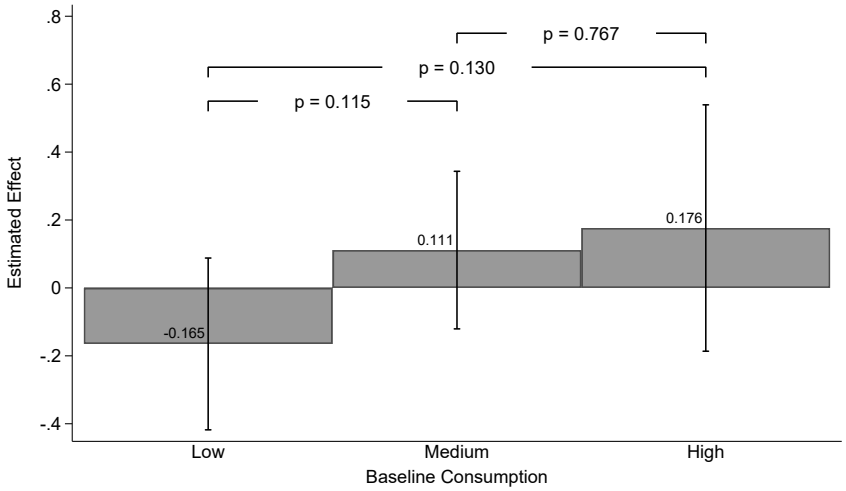
(A) Concerned for own health (B) Antibiotic resistance

Figure 6: Factors affecting planned consumption

Notes: The figures depict the mean agreement with the following two statements on a scale of 0 to 100, by treatment group: (a) "I am concerned about the health effects of directly consuming citrus products.", and (b) "I am concerned about contributing to antibiotic resistance in bacteria.". There are three treatment groups: Control, Biden and Trump. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump; for the Control group, this information is not presented at all. We also present the 95% confidence intervals for the means. We report the p-values for pairwise regressions of the reported likelihood of consumption on a dummy equal to one if a person was assigned to one treatment group instead of the other. In all cases, p-values were computed using robust standard errors. The figures are based on a randomly selected 15% subsample of N=822 individuals who were selected to see the question (171 for Control, 331 for Biden, and 320 for Trump).



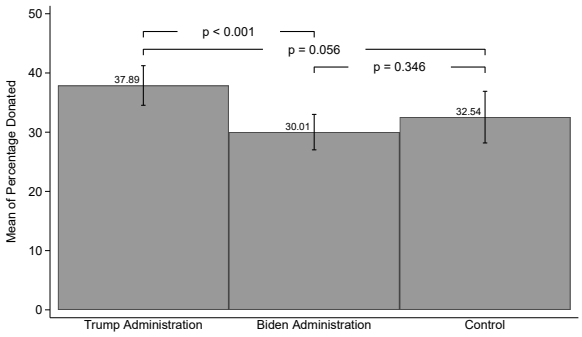
(A) Trump vs. Biden



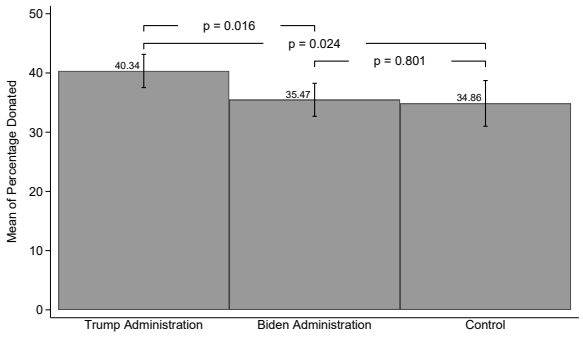
(B) Trump vs. Control

Figure 7: Trump Treatment Effect on WTP by Baseline Consumption

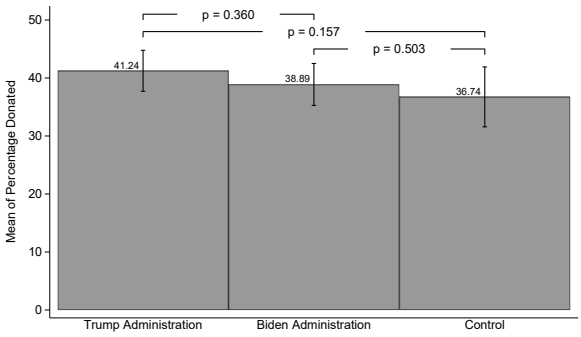
Notes: Panel A The figure presents treatment effects of the Trump treatment relative to the Biden treatment, by baseline orange juice consumption. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump; for the Control group, this information is not presented at all. We regressed the WTP for the gift card on a dummy equal to one if the individual was assigned to the Trump group, which was interacted with an indicator variable for the baseline consumption category. The sample was limited to those assigned to either the Trump group or the Biden group. We then graph the estimated marginal effect of the Trump treatment (relative to Biden) at each of the three baseline consumption groups, with 95% confidence intervals. We also report p-values for pairwise tests for differences in treatment effects between baseline consumption categories. In all cases, p-values were computed using robust standard errors. **Panel B** The figure presents the same information as Panel A, except the comparison treatment group is Control instead of Biden.



(A) Low



(B) Medium



(C) High

Figure 8: Donations by baseline consumption

Notes: Panel A: The figure depicts mean percentage of the bonus payment donated to United States Public Interest Research Group (USPIRG), an organization that opposes the streptomycin spraying policy, by treatment group. The sample is restricted to those who were sometimes consumers and had low baseline consumption of orange juice. We also present the 95% confidence intervals for the means. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump; for the Control group, this information is not presented at all. We report the p-values for pairwise regressions of the proportion of the bonus payment donated to USPIRG on a dummy equal to one if a person was assigned to one treatment group instead of the other. In all cases, p-values were computed using robust standard errors. **Panel B:** The figure presents the same information as Panel A, except for medium baseline consumers instead of low. **Panel C:** The figure presents the same information as Panel A, except for high baseline consumers instead of low.

B Tables

Table 4: Main Outcomes Survey 1

	(1) vs Control	(2) vs Control	(3) vs Biden	(4) vs Control	(5) vs Control	(6) vs Biden	(7) vs Control	(8) vs Control	(9) vs Biden
Panel A: Donations									
Trump	4.682***		5.141***	5.653***		5.128***	5.349**		3.693*
	(1.458)		(1.194)	(1.406)		(1.150)	(2.489)		(2.030)
Biden		-0.459			0.468			2.200	
		(1.446)			(1.399)			(2.477)	
Constant	34.75***	34.75***	34.29***	6.718**	6.909**	7.132**	11.10*	2.360	7.762
	(1.181)	(1.181)	(0.834)	(3.255)	(3.330)	(2.841)	(6.285)	(5.194)	(5.839)
Observations	3304	3295	4385	3304	3295	4385	3275	3267	4348
Controls	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Reweighted	No	No	No	No	No	No	Yes	Yes	Yes
p-value (Treatment)	0.0013	0.7508	< 0.0001	< 0.0001	0.7381	< 0.0001	0.0317	0.3745	0.0689
Mean dep. var.	37.867	34.449	36.870	37.867	34.449	36.870	42.129	39.992	41.807
Panel B: Policy Support Index									
Trump	-2.249***		-1.205***	-2.262***		-1.205***	-2.225***		-1.237***
	(0.120)		(0.0985)	(0.116)		(0.0947)	(0.298)		(0.198)
Biden		-1.043***			-1.055***			-1.036***	
		(0.121)			(0.119)			(0.249)	
Constant	1.315***	1.315***	0.272***	2.882***	1.931***	1.430***	2.208**	2.260***	0.827
	(0.0979)	(0.0979)	(0.0707)	(0.268)	(0.285)	(0.232)	(1.007)	(0.542)	(0.873)
Observations	3302	3294	4382	3302	3294	4382	3275	3267	4348
Controls	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Reweighted	No	No	No	No	No	No	Yes	Yes	Yes
p-value (Treatment)	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Mean dep. var.	-0.180	0.622	-0.332	-0.180	0.622	-0.332	-0.266	0.509	-0.432

Notes: The table reports pairwise treatment effects for the main outcomes of survey 1. There are three treatment groups: Control, Biden and Trump. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump; for the Control group, this information is not presented at all. **Panel A** provides results with the percentage of the bonus payment donated to United States Public Interest Research Group (USPIRG) as the dependent variable. For each column, the comparison (base) group is indicated directly under the column number. In column (1) we regress the dependent variable on a dummy equal to one if the individual was assigned to the Trump group, and limit the sample to those in either the Trump or Control groups. For column (2) this is repeated but with Biden instead of Trump. In column (3) we limit the sample to those assigned to the Trump or Biden groups. columns (4)–(6) present the same specifications as (1)–(3) but with the addition of controls. The following controls were included: age, number of adults (over 18) in the household capped at 10, number of children in the household capped at 10, a measure of a person's relative importance of universalist vs. communal values based on an abridged Moral Foundations Questionnaire and calculated according to Enke (2020), fixed effects for gender categories (male, female, non-binary, other and refused answer), a dummy equal to one if they are white/European American, a dummy equal to one if they are black/African American, a dummy equal to one if they are Hispanic or Latino, a dummy equal to one if they are Asian/Asian American, a dummy equal to one if a person has not undertaken at least some college study, a dummy equal to one if they have completed a 4 year degree or a post-graduate degree, a dummy equal to one if they have a religion or belief, and strata fixed effects. Columns (7)–(9) present the same specifications as (4)–(6), but use the representative sample weights and excluding from the sample anyone who did not complete all the outcome questions in survey 1. **Panel B** reports the same specifications as Panel A but the dependent variable is the policy support index. Robust standard errors are in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 5: Planned Consumption

	(1) vs Control	(2) vs Control	(3) vs Biden	(4) vs Control	(5) vs Control	(6) vs Biden	(7) vs Control	(8) vs Control	(9) vs Biden
Trump	-7.128**		2.410	-4.750		3.607	-5.824		4.320
	(3.356)		(2.777)	(3.146)		(2.438)	(4.860)		(4.087)
Biden		-9.538***			-8.397***			-10.85*	
		(3.395)			(3.236)			(5.765)	
Constant	53.00***	53.00***	43.46***	48.22***	45.06***	40.27***	58.02***	54.53***	33.99***
	(2.745)	(2.745)	(1.997)	(7.520)	(7.858)	(6.005)	(9.852)	(13.27)	(8.183)
Observations	491	502	651	491	501	649	488	501	648
Controls	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Reweighted	No	No	No	No	No	No	Yes	Yes	Yes
p-value (Treatment)	0.0342	0.0052	0.3859	0.1318	0.0098	0.1395	0.2314	0.0605	0.2909
Mean dep. var.	48.354	46.711	44.647	48.354	46.685	44.626	45.831	44.667	40.960

Notes: The table reports the regression results with the reported likelihood of consuming citrus products in the next month (from 0 to 100) as the dependent variable. There are three treatment groups: Control, Biden and Trump. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump; for the Control group, this information is not presented at all. For each column, the comparison (base) group is indicated directly under the column number. In column (1) we regress the dependent variable on a dummy equal to one if the individual was assigned to the Trump group, and limit the sample to those in either the Trump or Control groups. For column (2) this is repeated but with Biden instead of Trump. In column (3) we limit the sample to those assigned to the Trump or Biden groups. columns (4)–(6) present the same specifications as (1)–(3) but with the addition of controls. The following controls were included: age, number of adults (over 18) in the household capped at 10, number of children in the household capped at 10, a measure of a person's relative importance of universalist vs. communal values based on an abridged Moral Foundations Questionnaire and calculated according to Enke (2020), fixed effects for gender categories (male, female, non-binary, other and refused answer), a dummy equal to one if they are white/European American, a dummy equal to one if they are black/African American, a dummy equal to one if they are Hispanic or Latino, a dummy equal to one if they are Asian/Asian American, a dummy equal to one if a person has not undertaken at least some college study, a dummy equal to one if they have completed a 4 year degree or a post-graduate degree, a dummy equal to one if they have a religion or belief, and strata fixed effects. Columns (7)–(9) present the same specifications as (4)–(6), but use the representative sample weights. Robust standard errors are in parentheses. Reported p-values are for two-sided tests. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 6: WTP for Orange Juice Gift Card

	(1) vs Control	(2) vs Control	(3) vs Biden	(4) vs Control	(5) vs Control	(6) vs Biden	(7) vs Control	(8) vs Control	(9) vs Biden
Trump	0.0486		0.0832	0.0437		0.0783	-0.174		0.00792
	(0.0804)		(0.0665)	(0.0802)		(0.0660)	(0.140)		(0.100)
Biden		-0.0346			-0.0372			-0.156	
		(0.0792)			(0.0783)			(0.138)	
Constant	1.642***	1.642***	1.607***	0.746***	0.686***	0.696***	0.953***	0.648**	0.953***
	(0.0645)	(0.0645)	(0.0461)	(0.186)	(0.183)	(0.162)	(0.300)	(0.323)	(0.260)
Observations	2400	2372	3146	2400	2372	3146	2390	2363	3133
Controls	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Reweighted	No	No	No	No	No	No	Yes	Yes	Yes
p-value (Treatment)	0.5454	0.6629	0.2113	0.5858	0.6345	0.2351	0.2159	0.2559	0.9369
Mean dep. var.	1.674	1.619	1.649	1.674	1.619	1.649	1.714	1.703	1.641

Notes: The table reports the regression results with the willingness to pay for an $8 orange juice gift card as the dependent variable. There are three treatment groups: Control, Biden and Trump. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump; for the Control group, this information is not presented at all. For each column, the comparison (base) group is indicated directly under the column number. In column (1) we regress the dependent variable on a dummy equal to one if the individual was assigned to the Trump group, and limit the sample to those in either the Trump or Control groups. For column (2) this is repeated but with Biden instead of Trump. In column (3) we limit the sample to those assigned to the Trump or Biden groups. Columns (4)–(6) present the same specifications as (1)–(3) but with the addition of controls. The following controls were included: age, number of adults (over 18) in the household capped at 10, number of children in the household capped at 10, a measure of a person's relative importance of universalist vs. communal values based on an abridged Moral Foundations Questionnaire and calculated according to Enke (2020), fixed effects for gender categories (male, female, non-binary, other and refused answer), a dummy equal to one if they are white/European American, a dummy equal to one if they are black/African American, a dummy equal to one if they are Hispanic or Latino, a dummy equal to one if they are Asian/Asian American, a dummy equal to one if a person has not undertaken at least some college study, a dummy equal to one if they have completed a 4 year degree or a post-graduate degree, and a dummy equal to one if they have a religion or belief. Columns (7)–(9) present the same specifications as (4)–(6), but use the representative sample weights for sometimes consumers. Robust standard errors are in parentheses. Reported p-values are for two-sided tests. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 7: WTP by Baseline Consumption

	(1) vs Control	(2) vs Biden	(3) vs Control	(4) vs Biden	(5) vs Control	(6) vs Biden	(7) vs Control	(8) vs Biden
Trump	-0.165	-0.0740	-0.156	-0.0746	0.138	0.147*	0.127	0.141*
	(0.129)	(0.104)	(0.129)	(0.104)	(0.101)	(0.0839)	(0.100)	(0.0833)
Trump × Medium	0.276	0.161	0.259	0.158				
	(0.175)	(0.143)	(0.174)	(0.143)				
Trump × High	0.341	0.320*	0.314	0.312*				
	(0.226)	(0.185)	(0.225)	(0.184)				
Trump × Low					-0.303*	-0.221*	-0.282*	-0.217
					(0.164)	(0.134)	(0.163)	(0.133)
Observations	2400	3146	2400	3146	2400	3146	2400	3146
Controls	No	No	Yes	Yes	No	No	Yes	Yes
Base Group	Low	Low	Low	Low	Med.+High	Med.+High	Med.+High	Med.+High
Mean dep. var.	1.674	1.649	1.674	1.649	1.674	1.649	1.674	1.649

Notes: The table reports pairwise treatment effects for the WTP outcome by baseline consumption. There are three treatment groups: Control, Biden and Trump. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump; for the Control group, this information is not presented at all. For each column, the comparison group is indicated directly under the column number. In column (1) we regress the dependent variable on a dummy equal to one if the individual was assigned to the Trump group interacted with the baseline consumption indicator variable, and limit the sample to those in either the Trump or Control groups. For column (2) this is repeated but with Biden as the comparison group instead of Control. Columns (3)–(4) present the same specifications as (1)–(2), except with the addition of controls. The following controls were included: age, number of adults (over 18) in the household capped at 10, number of children in the household capped at 10, a measure of a person's relative importance of universalist vs. communal values based on an abridged Moral Foundations Questionnaire and calculated according to Enke (2020), fixed effects for gender categories (male, female, non-binary, other and refused answer), a dummy equal to one if they are white/European American, a dummy equal to one if they are black/African American, a dummy equal to one if they are Hispanic or Latino, a dummy equal to one if they are Asian/Asian American, a dummy equal to one if a person has not undertaken at least some college study, a dummy equal to one if they have completed a 4 year degree or a post-graduate degree, and a dummy equal to one if they have a religion or belief. Columns (5)–(8) use the same specifications as (1)–(4), except instead of using an indicator for three baseline consumption groups, we use a dummy equal to one if the individual had low baseline consumption and interact this with the Trump group dummy. Robust standard errors are in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 8: Heterogeneity for Primary Outcomes: Trump vs. Biden

	(1) Donations	(2) Policy Index	(3) Trust Index	(4) WTP
Trump × Male	-6.948***	0.239	0.113	0.168
	(2.389)	(0.204)	(0.183)	(0.135)
Trump × Universalist	0.0661	-0.481**	-0.594***	-0.175
	(2.407)	(0.195)	(0.175)	(0.133)
Trump × EPA	1.886	0.310	0.156	0.0127
	(2.389)	(0.197)	(0.178)	(0.133)
Trump × Portraits	2.497	-0.0461	-0.0460	-0.228*
	(2.389)	(0.197)	(0.178)	(0.133)
Trump × Never Consumer	-0.925	-0.150	-0.161	
	(3.239)	(0.257)	(0.233)	
Baseline Consumption				
Trump × Medium	-1.670	0.195	0.0938	0.161
	(2.709)	(0.216)	(0.196)	(0.143)
Trump × High	-4.182	-0.267	-0.0510	0.320*
	(3.144)	(0.274)	(0.240)	(0.185)
Observations	4385	4382	4380	3146
Mean dep. var.	36.870	-0.332	0.000	1.649

Notes: The table presents the heterogeneity regression results for the primary outcomes of the surveys. All regressions are restricted to the sample of those assigned to either the Trump or Biden groups. For each cell, we regress the dependent variable on a Trump group dummy interacted with the dimension of heterogeneity without any further controls, and report the coefficient of the interaction term. We report heterogeneity along the following variables: (1) a dummy equal to one if the person is male and zero otherwise (*Male*), a dummy equal to one if the person has a relative universalism score above the median of the sample (*Universalist*), a dummy equal to one if the person was assigned to see "EPA" and zero if they saw "relevant regulatory agency" (*EPA*), a dummy equal to one if the person was assigned to see presidential portraits and zero if they saw the photo of the president with their EPA Administrator (*Portraits*), and a dummy equal to one if they answered "Never" when asked how often in the past month did they (i) buy orange juice, and (ii) consume orange juice, and if thirdly they select "Orange juice" when asked "In general, are there any of these products that you never consume?" (*Never Consumer*). For baseline consumption, we interacted the Trump group dummy with the medium and high consumption group dummies within the same regression. The dependent variable is listed immediately under the column number. The WTP heterogeneity by Never Consumer is omitted as never-consumers were not invited to the follow-up. Robust standard errors are in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

ONLINE APPENDIX

The online appendix provides additional analysis that supports the results presented in the body of the paper (Section I.1). Moreover, we describe the survey instructions, treatment screens, and the wording of all outcome measures for survey 1 (Section I.2) and survey 2 (Section I.3).

I.1 Additional Analysis

Below, we present auxiliary results that strengthen the robustness and our understanding of the results presented in the body of the paper.

I.1.1 Sample Balance

To supplement the discussion of our sample, we provide evidence that the sample of individuals assigned treatment in survey 1 is well-balanced. Table A1 shows that the treatment groups did not differ on any of the collected covariates at the 5% level.

As discussed in the paper, we find no differential attrition between survey 1 and survey 2. However, it is still possible that there was differential dropout on the types of individuals if not their numbers. To address this concern, Table A2 shows balance on observable covariates for the sample who took the follow-up survey. We observe no imbalances on any of the 14 available covariates at the 5% level. Only one difference (for $\geq$ 4 Years College) is significant at the 10% level. It is important to note that marginal imbalance (p=0.092) on that characteristic was already present in the sample of people who took survey 1.

I.1.2 Additional Heterogeneity Analysis

Below, we present two additional results exploring heterogeneity with respect to past consumption of orange juice (low, medium, or high).

First, Figure B1 demonstrates heterogeneity in the WTP for an $8 Amazon gift card for orange juice by past orange juice consumption. Unlike in the paper, here we restrict the sample to those who took the follow-up on the first possible day (3 days after taking survey 1). For these participants, the memory of the information intervention is the most recent. Furthermore, they had less time following the intervention to do grocery shopping and buy orange juice, which could affect their demand for the gift card during the follow-up survey. As expected, we report an even more pronounced heterogeneity by past consumption for this subsample (of 62.5% of participants). The out-group vs. in-group effect was negative for the elastic consumers (low past consumption) and significantly lower than the effect for the

high consumers (p=0.027). We observe similar patterns for the Control, with the difference between the low and high consumption bins significant at the 10% level.

Table A1: Balance on Covariates (Survey 1)

	Full Sample			Control	Biden	Trump	p-value
Variable	mean	sd	N	mean	mean	mean	Control=Biden=Trump
Age	40.350	13.010	5566	40.977	40.215	40.171	0.207
				(0.399)	(0.277)	(0.271)	
Female	0.606	0.489	5566	0.630	0.592	0.608	0.095
				(0.014)	(0.010)	(0.010)	
White	0.665	0.472	5566	0.661	0.675	0.657	0.419
				(0.014)	(0.010)	(0.010)	
Black	0.190	0.392	5566	0.202	0.187	0.186	0.539
				(0.012)	(0.008)	(0.008)	
Hispanic	0.091	0.288	5566	0.084	0.092	0.093	0.627
				(0.008)	(0.006)	(0.006)	
Asian	0.114	0.318	5566	0.113	0.104	0.124	0.117
				(0.010)	(0.006)	(0.007)	
No College	0.093	0.290	5566	0.088	0.097	0.091	0.666
				(0.009)	(0.006)	(0.006)	
$\geq$ 4 Years College	0.616	0.486	5566	0.640	0.601	0.618	0.092
				(0.014)	(0.010)	(0.010)	
Num Adults in Household	2.185	1.005	5566	2.185	2.204	2.166	0.445
				(0.031)	(0.021)	(0.021)	
Num Children in Household	0.559	0.921	5566	0.539	0.549	0.579	0.416
				(0.027)	(0.019)	(0.020)	
Income < 70k	0.462	0.499	5566	0.443	0.467	0.465	0.370
				(0.015)	(0.011)	(0.011)	
Primary Shopper	0.823	0.382	5566	0.818	0.830	0.819	0.514
				(0.012)	(0.008)	(0.008)	
Religious	0.366	0.482	5566	0.372	0.362	0.368	0.825
				(0.015)	(0.010)	(0.010)	
Universalism Score	7.808	5.018	5566	7.724	7.879	7.780	0.657
				(0.146)	(0.107)	(0.107)	
Never consumes OJ	0.166	0.372	5566	0.166	0.166	0.167	0.997
				(0.011)	(0.008)	(0.008)	

Notes: The table presents balance on covariates by treatment group (Control, Biden and Trump) and for the full sample. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump; for the Control group, this information is not presented at all. For each covariate we report the full sample mean, standard deviation and number of observations, and the mean by treatment group with standard errors in parentheses. We also regress each variable on a set of three dummy variables equal to one if the participant was assigned to the Control, or Trump, or Biden treatment group respectively, without a constant term, and report the p-value of the F-test for equality of the three coefficients. In all cases, p-values were computed using robust standard errors. We report the following covariates in order: (1) age, in years (*Age*), (2) a dummy equal to one if a person is female and zero otherwise (*Female*), (3) a dummy equal to one if they are white/European American (*White*), (4) a dummy equal to one if they are black/African American (*Black*), (5) a dummy equal to one if they are Hispanic or Latino (*Hispanic*), (6) a dummy equal to one if they are Asian/Asian American (*Asian*), (7) a dummy equal to one if a person has not undertaken at least some college study (*No College*), (8) a dummy equal to one if they have completed a 4 year degree or a post-graduate degree ($\geq$ *4 Years College*), (9) the number of adults aged 18 and above in a person's household capped at 10 (*Num Adults in Household*), (10) the number of children under the age of 18 in a person's household capped at 10 (*Num Children in Household*), (11) a dummy equal to one if they have a household income less than $70,000 (*Income < 70k*), (12) a dummy equal to one if they are the primary shopper for their household (*Primary Shopper*), (13) a dummy equal to one if they have a religion or belief (*Religious*), (14) a measure of a person's relative importance of universalist vs. communal values, from -20 to 20 with more positive values representing more importance for universalist values, based on an abridged eight-question version of the Moral Foundations Questionnaire and calculated according to Enke (2020) (*Universalism Score*), (15) a dummy equal to one if a person never consumed or bought orange juice in the past month and in general never consumes orange juice (*Never consumes OJ*). The table is based on the sample of all individuals assigned to a treatment group (N=5,566).

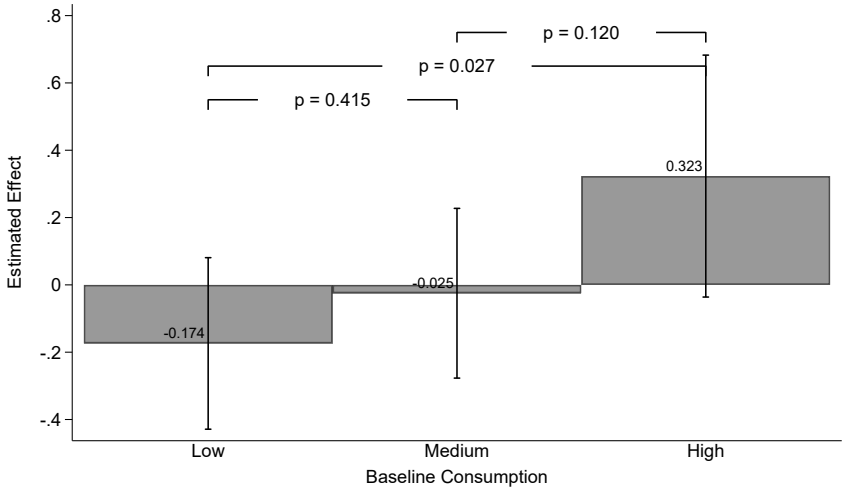
Table A2: Balance on Covariates (Follow-Up)

	Full Sample			Control	Biden	Trump	p-value
Variable	mean	sd	N	mean	mean	mean	Control=Biden=Trump
Age	40.529	12.637	4025	41.062	40.414	40.370	0.405
				(0.448)	(0.320)	(0.309)	
Female	0.604	0.489	4025	0.628	0.592	0.604	0.223
				(0.017)	(0.012)	(0.012)	
White	0.642	0.479	4025	0.631	0.656	0.635	0.336
				(0.017)	(0.012)	(0.012)	
Black	0.208	0.406	4025	0.232	0.203	0.201	0.179
				(0.015)	(0.010)	(0.010)	
Hispanic	0.095	0.293	4025	0.088	0.095	0.099	0.687
				(0.010)	(0.007)	(0.007)	
Asian	0.118	0.322	4025	0.115	0.108	0.128	0.204
				(0.011)	(0.008)	(0.008)	
No College	0.092	0.290	4025	0.082	0.097	0.093	0.466
				(0.010)	(0.007)	(0.007)	
$\geq$ 4 Years College	0.619	0.486	4025	0.644	0.600	0.625	0.085
				(0.017)	(0.012)	(0.012)	
Num Adults in Household	2.203	0.997	4025	2.205	2.214	2.192	0.818
				(0.036)	(0.024)	(0.025)	
Num Children in Household	0.602	0.942	4025	0.573	0.596	0.623	0.437
				(0.032)	(0.023)	(0.024)	
Income < 70k	0.452	0.498	4025	0.438	0.465	0.448	0.413
				(0.017)	(0.013)	(0.012)	
Primary Shopper	0.836	0.371	4025	0.828	0.847	0.828	0.306
				(0.013)	(0.009)	(0.009)	
Religious	0.388	0.487	4025	0.389	0.388	0.388	0.999
				(0.017)	(0.012)	(0.012)	
Universalism Score	7.647	5.064	4025	7.469	7.694	7.692	0.507
				(0.170)	(0.128)	(0.128)	

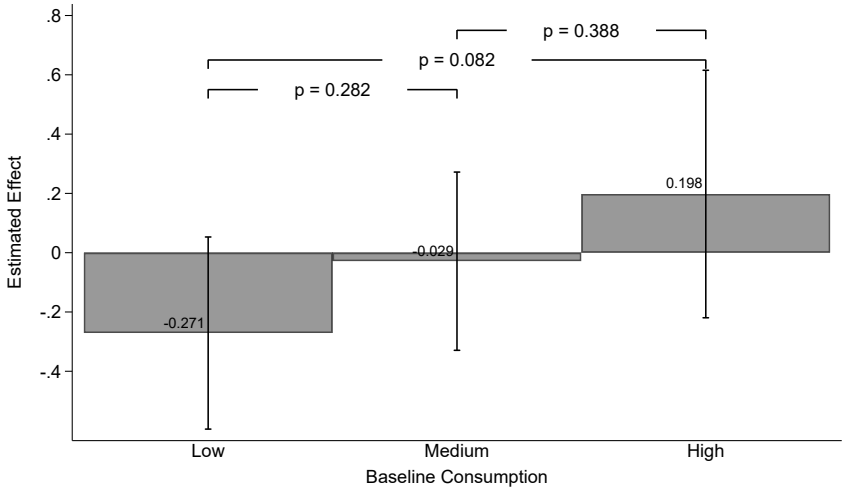
Notes: The table presents balance on covariates by treatment group (Control, Biden and Trump) and for those who took the follow up survey. In the first survey, the Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump; for the Control group, this information is not presented at all. For each covariate we report the full sample mean, standard deviation and number of observations, and the mean by treatment group with standard errors in parentheses. We also regress each variable on a set of three dummy variables equal to one if the participant was assigned to the Control, or Trump, or Biden treatment group respectively, without a constant term, and report the p-value of the F-test for equality of the three coefficients. In all cases, p-values were computed using robust standard errors. We report the following covariates in order: (1) age, in years (*Age*), (2) a dummy equal to one if a person is female and zero otherwise (*Female*), (3) a dummy equal to one if they are white/European American (*White*), (4) a dummy equal to one if they are black/African American (*Black*), (5) a dummy equal to one if they are Hispanic or Latino (*Hispanic*), (6) a dummy equal to one if they are Asian/Asian American (*Asian*), (7) a dummy equal to one if a person has not undertaken at least some college study (*No College*), (8) a dummy equal to one if they have completed a 4 year degree or a post-graduate degree ($\geq$ *4 Years College*), (9) the number of adults aged 18 and above in a person's household capped at 10 (*Num Adults in Household*), (10) the number of children under the age of 18 in a person's household capped at 10 (*Num Children in Household*), (11) a dummy equal to one if they have a household income less than \$70,000 (*Income < 70k*), (12) a dummy equal to one if they are the primary shopper for their household (*Primary Shopper*), (13) a dummy equal to one if they have a religion or belief (*Religious*), (14) a measure of a person's relative importance of universalist vs. communal values, from -20 to 20 with more positive values representing more importance for universalist values, based on an abridged eight-question version of the Moral Foundations Questionnaire and calculated according to Enke (2020) (*Universalism Score*). The table is based on the sample of all individuals assigned to a treatment group that began the follow up survey (N=4,025).

Second, Figure B2 looks at the same angle of heterogeneity but for a different outcome—trust in EPA's evaluation. We find that for all past consumption bins, out-group presidential administration reduces the trust index ($p<0.001$). We do not observe large or statistically significant differences in the magnitudes of the treatment effect. Thus, we conclude that

heterogeneous treatment effects on the WTP for orange juice and USPIRG donations are not due to differences in trust effects, but as a result of how distrust translates into economic decision making for inelastic vs. elastic consumers.



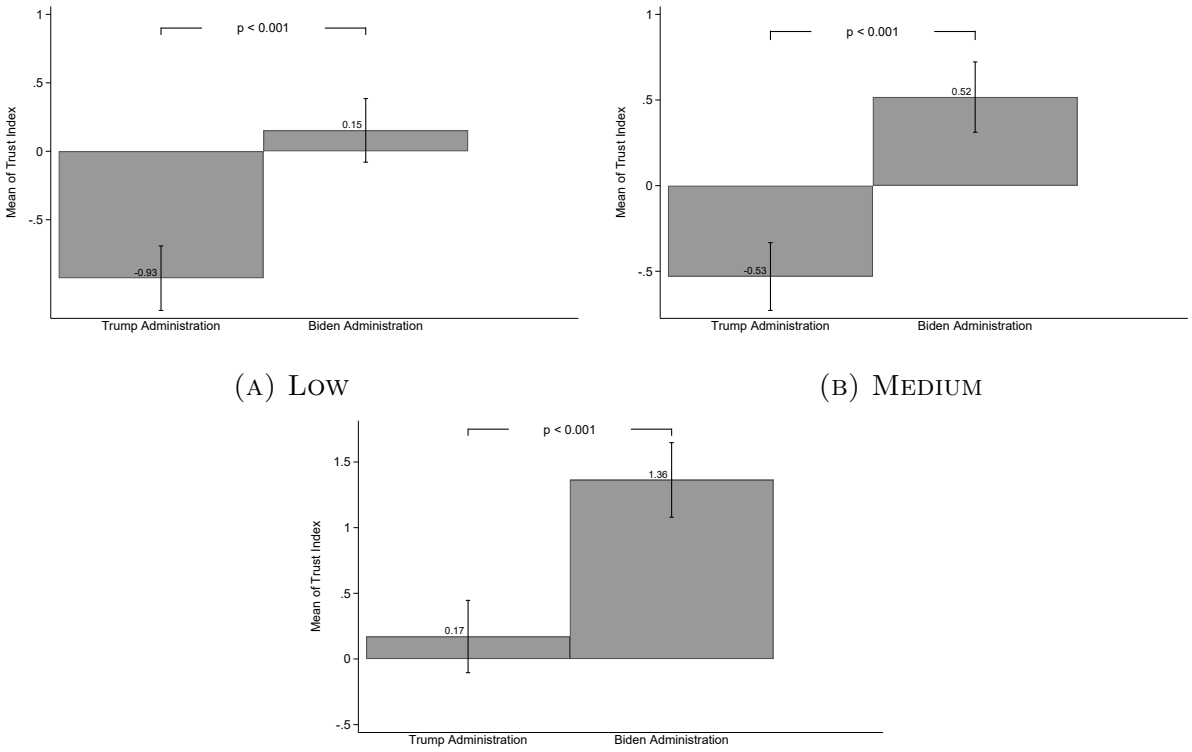
(A) Trump vs. Biden



(B) Trump vs. Control

Figure B1: WTP by Baseline Consumption (Sample=Follow-up on first day)

Notes: The figures use a sample restricted to those who took the follow-up on the first possible day (3 days after they took survey 1). **Panel A** The figure presents treatment effects of the Trump treatment relative to the Biden treatment, by baseline orange juice consumption. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump; for the Control group, this information is not presented at all. We regressed the WTP for the gift card on a dummy equal to one if the individual was assigned to the Trump group, which was interacted with an indicator variable for the baseline consumption category. The sample was limited to those assigned to either the Trump group or the Biden group (and took the follow-up on the first possible day). We then graph the estimated marginal effect of the Trump treatment (relative to Biden) at each of the three baseline consumption groups, with 95% confidence intervals. We also report p-values for pairwise tests for differences in treatment effects between baseline consumption categories. In all cases, p-values were computed using robust standard errors. **Panel B** The figure presents the same information as Panel A, except the comparison treatment group is Control instead of Biden.



(A) Low

(B) Medium

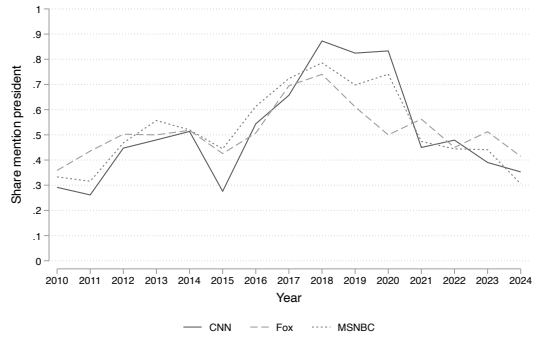
(C) High

FIGURE B2: TRUST BY BASELINE CONSUMPTION

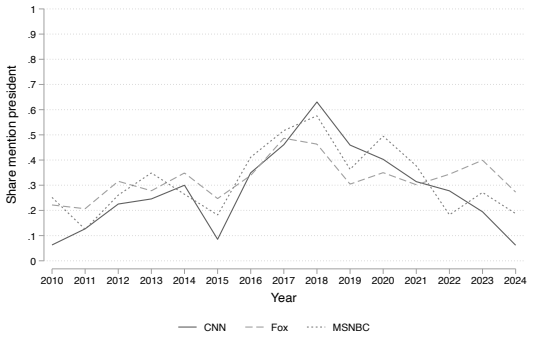
Notes: Panel A: The figure depicts the mean trust index, calculated as the sum of the sign-adjusted standardized scores to four trust questions, by treatment group. The sample is restricted to those who were sometimes consumers and had low baseline consumption of orange juice. The Biden group were presented with arguments against the policy, and then informed about the EPA's defense under the Biden administration. For the Trump group, Biden was replaced by Trump. The Control group were not asked the trust questions. We also present the 95% confidence intervals for the means. We report the p-value for a regression of the trust index on a dummy equal to one if a person was assigned to the Trump group instead of the Biden group. In all cases, p-values were computed using robust standard errors. **Panel B:** The figure presents the same information as Panel A, except for medium baseline consumers instead of low. **Panel C:** The figure presents the same information as Panel A, except for high baseline consumers instead of low.

I.1.3 TV Transcripts

In the paper, we presented several results demonstrating considerable salience of the association between the presidential administration and agencies issuing expert regulation. In particular, we use the GDELT Television Archive dataset of transcripts of shows on three US news networks (Fox News, CNN, MSNBC) organized into 15-second intervals. For each interval mentioning a regulation by an agency, we check whether it also mentions the presidential administration. Figure B3 provides a supporting piece of evidence, indicating that the likelihood that the presidential administration is mentioned when agency regulation is discussed does not vary by TV network. In particular, there are no significant differences between the time trends for left-leaning outlets (CNN) and right-leaning outlets (Fox News).



(A) EPA



(B) Top 20 Agencies

Figure B3: Trends in TV discussions of US agencies

Note: We use the GDELT Television Archive dataset of transcripts of shows on three US news networks (Fox News, CNN, MSNBC) organized into 15-second intervals. For each interval mentioning a regulation by an agency, we check whether it also mentions the presidential administration. Combining the intervals at the agency-station-show-date level, we report the likelihood that where regulation is mentioned, the presidential administration is also named by news network. **Panel A** shows the likelihood over time for regulation by the Environmental Protection Agency. **Panel B** demonstrates the same variable for the top twenty agencies with the highest number of mentions throughout the sample period.

I.2 Survey 1

I.2.1 Demographics and Attention

A. What is your age (years)?

- I am *[Note: Text entry question. Only values between 18 and 89 were allowed.]*
- I'd prefer not to answer

B. What is your gender?

- Female
- Male
- Non-binary
- Other (please describe if you wish) *[Note: Text entry]*
- I'd prefer not to answer

C. Please select your state of residence.

D. What is your ethnicity? Please select all that apply.

- White or European American
- Black or African American
- Hispanic or Latino
- Asian or Asian American
- Other (please specify if you wish) *[Note: text entry]*

- I'd prefer not to answer

E. What is the highest level of education you have completed?

- Less than high school
- High school graduate
- Some college
- 2 year degree
- 4 year degree
- Master's degree
- Doctorate degree
- Professional degree (JD, MD, etc.)

F. The next question is about the following problem. In questionnaires like ours, sometimes there are participants who do not carefully read the questions and just quickly click through the survey. This means that there are a lot of random answers which compromise the results of research studies. To show that you read our questions carefully, please choose both "Extremely interested" and "Not interested at all" as your answer in the next question. Do not select any other option. How interested are you in sports?

- Extremely interested
- Very interested
- A little bit interested
- Almost not interested
- Not interested at all

G. Generally speaking, do you usually think of yourself as a Republican, a Democrat, or an Independent?

- Republican
- Democrat
- Independent

Note: This question appears if "Independent" is selected in Part G.

H. As an Independent, do you think of yourself as closer to Republicans or Democrats?

- Republicans
- Democrats

I. In your household, how many...

- Adults are there, including yourself (18 and above)? *[Note: Participants had to choose one value from a drop-down list. The options included: integers from 1 to 10.]*

- Children under the age of 18 are there? *[Note: Participants had to choose one value from a drop-down list. The options included: integers from 0 to 10.]*

J. What was your gross **household** income in 2023 in US dollars?

- Less than $10,000
- $10,000 - $19,999
- $20,000 - $29,999
- $30,000 - $39,999
- $40,000 - $49,999
- $50,000 - $59,999
- $60,000 - $69,999
- $70,000 - $79,999
- $80,000 - $89,999
- $90,000 - $99,999
- $100,000 - $149,999
- More than $150,000

K. How often in the **past month** did you do the following?

- Grocery shopping for your household
- Buy milk
- Consume milk
- Buy orange juice
- Consume orange juice
- Buy bread
- Consume bread

Note: For each statement, participants were required to choose one of the following options: "Never", "Once or twice a month", "Once a week", "A few times a week", "Every day".

L. In general, are there any of these products that you **never** consume? Select all that apply.

- Milk
- Orange juice
- Bread
- I consume all of them at least occasionally

M. Generally speaking, are you the primary shopper for your household?

- Yes
- No

N. What is your religion or belief?

- Roman Catholic
- Protestant (Mainline)
- Evangelical/Non-denominational Christian
- Mormon
- Eastern or Greek Orthodox
- Jewish
- Muslim
- Buddhist
- Hindu
- Agnostic
- No religion
- Other (please specify if you wish) *[Note: Text entry]*
- I'd prefer not to say

O. When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking?

- Whether or not someone suffered emotionally
- Whether or not some people were treated differently than others
- Whether or not someone's action showed love for his or her country
- Whether or not someone showed a lack of respect for authority
- Whether or not someone cared for someone weak or vulnerable
- Whether or not someone acted unfairly
- Whether or not someone did something to betray his or her group
- Whether or not someone conformed to the traditions of society

Likert scale: "Not at all relevant", "Not very relevant", "Slightly relevant", "Somewhat relevant", "Very relevant", "Extremely relevant".

I.2.2 Background Information

Thank you for taking the time to answer the questions about your background.

We are a group of **non-partisan researchers** interested in public policy issues.

You will now receive information about the following public policy issue: **Agriculture and Crop Diseases.**

Crop diseases pose a major risk to agricultural productivity in the United States. For example, **citrus greening disease wreaks havoc in Florida and California**, threatening

a multi-billion dollar **citrus (oranges, lemons, etc.)** industry.

In 2019, Nature reported that in the Florida orange industry "**almost half the acreage** that was in production before the disease arrived [in 2005] has been **abandoned**" and, by some estimates, "up to **90% of trees** in the state have been **infected and will eventually die**."

Up to what percentage of Florida orange trees were reported to be infected by citrus greening and will eventually die?

- % of Florida orange trees

Note: Participants were required to choose an integer between 0 and 100 using a slider.

In response to the disease, **large quantities of the antibiotics** streptomycin and oxytetracycline have been **sprayed** on citrus trees in the United States.

Since the arrival of the disease, multiple pieces of regulation have been issued to allow spraying of citrus crops. For example, in 2023, existing regulations allowed "**as much as 650,000 pounds of streptomycin to be sprayed** on citrus crops" per year. By comparison, Americans use 14,000 pounds per year of aminoglycosides, the class of antibiotics that includes streptomycin, to treat moderate to severe bacterial infections such as pneumonia and E.Coli.

Which of the following antibiotics have been **sprayed in large quantities** to tackle citrus greening in the United States? Select **all** that apply.

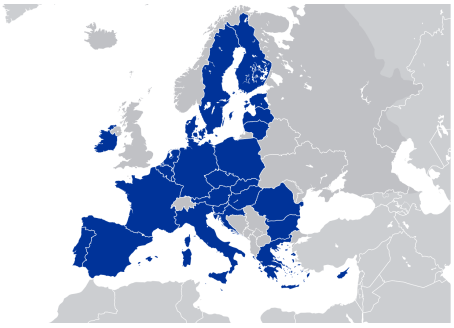
- sulfamethoxazole
- oxytetracycline
- ofloxacin
- streptomycin

I.2.3 Opponents Arguments

Note: This block appeared only for participants assigned to the Trump and Biden groups.

Spraying of citrus trees with streptomycin has been met with **significant opposition** in the United States. In this section, you will learn more about the **arguments against spraying antibiotics** on citrus trees.

In some places outside of the United States, such as the **European Union and Brazil**, the spraying of streptomycin on crops **has been banned for many years**.



In which of these places is spraying streptomycin on crops NOT permitted? Select **all** that apply.

- European Union
- United States
- Brazil
- None of the above

Argument 1: Antibiotic Resistance

In the United States, a representative from an advocacy group argued that "[i]n a pandemic era and an age of **antibiotic overuse**, we cannot afford to risk further public health crises from **antibiotic resistance**. The use of streptomycin as a pesticide needlessly and **dangerously exposes farmworkers, communities**, and the environment to an increased, unacceptable, and unlawful risk of harm, and should immediately cease."

It is reported that "scientists are especially worried that the drugs will cause pathogenic **bacteria in the soil to become resistant to the compounds** and then **find their way to people** through groundwater or contaminated food."

"Drug-resistant infections **kill 23,000 Americans** each year and **sicken two million**, according to the C.D.C. As more germs mutate, the threat is growing."

According to the text above, which of the following statements are true or false?

- Drug resistant infections kill 23,000 Americans each year
- Texas is a province of Canada
- Spraying crops with antibiotics can lead to soil-based bacteria developing immunity to antibiotics
- People cannot catch antibiotic resistant infections from consuming contaminated food or water

Note: For each statement, participants were required to select one of the following options: "True", "False".

Argument 2: Direct Effects of Exposure

On top of the threat of building antibiotic resistance, "[a]ntibiotics sprayed on crops can affect farm workers or **people who directly consume contaminated fruit**".

Beyond Pesticides, a group encouraging opposition to antibiotic spraying, states that "**[e]xposure to antibiotics can disturb the microbiota in the gut**. In addition to interfering with digestion, a disrupted gut microbiome can contribute to a **whole host of '21st century diseases'**" such as inflammatory bowel disease.

A physician from the Migrant Clinician Network (MCN), a group of physicians who oppose streptomycin spraying, points out that "direct exposure to **streptomycin can cause harmful toxicity**." Another physician from MCN explains that "pesticide residue remains in the air and on surfaces for a **very long time** after it is initially sprayed" and can be transferred by contact.

Which of the following points are mentioned in the text above? Select **all** that apply.

- Antibiotic spraying can harm people who directly consume contaminated fruits.
- Farmers are at risk of skin allergies as a result of antibiotic spraying.
- Children are particularly vulnerable to negative consequences of consuming contaminated fruits.
- Spraying can lead to multiple diseases through disturbing microbiota in the gut.

I.2.4 Trump Block (EPA)

Note: This block appeared only for participants assigned to the Trump treatment group and were assigned to see the EPA mentioned explicitly.

The Environmental Protection Agency (EPA) issued a final authorization decision, **allowing U.S. farmers to spray large quantities of the antibiotic streptomycin** on **citrus crops** to combat citrus greening.

The authorization decision was supported by the administration of President **Donald Trump**.

In particular, the EPA under the administration of President **Donald Trump** provided arguments and **scientific evidence** supporting the position that **antibiotic spraying of citrus crops** poses **little risk** and "meets the regulatory and safety standards."

In the years following the final authorization decision, considerable efforts have been made to overturn the antibiotic spraying policy in the courts. **Despite the legal challenge**, spraying of streptomycin on citrus crops was **permitted to continue** as of December 2023. Additionally, applying other antibiotics on citrus crops, such as oxytetracycline, is permitted under separate regulations.

Donald Trump with his EPA head Andrew Wheeler.

Donald Trump appointed EPA head Andrew Wheeler.

Note: Participants saw only one of these images depending on whether they were assigned to see portraits (the right image) or an image of the president with their EPA head (left image).

According to the text above, the EPA provided scientific evidence in favor of antibiotic spraying of citrus crops under the administration of which president?

- Barack Obama
- Joe Biden
- Donald Trump
- George W. Bush

Which of the following statements are true? Select **all** that apply.

- The policy allowing spraying of citrus crops with antibiotics continues until this day.
- Farmers need to apply for a special permit before they can start spraying their crops.
- The EPA argued that antibiotic spraying of citrus crops poses little risk and meets safety standards.

Note: The information and questions below appeared on the following page of the survey, accompanied by the same photo that was displayed above.

Below, we list several statements backed by **scientists from the EPA** in favor of streptomycin spraying of citrus crops.

1. "EPA **thoroughly evaluated** both ecological and **human health** risks, including the potential development of **antibiotic resistance** in human and in plant pathogens."

2. "Streptomycin is practically **non-toxic** and poses **limited risk**."

3. "EPA concluded that it is '**unlikely**' that any current **resistance to streptomycin** in 'clinical' applications, i.e., human pharmaceuticals, '**is due to streptomycin's use in agriculture.'**"

4. "EPA also conducted risk assessments to **evaluate the risk to human health**, concluding there are **'no risks of concern.'**"

5. "EPA found **no evidence** that streptomycin was a carcinogen, [...], no residual exposure concerns, [...] and no indication of a dermal hazard."

Select **all** points covered by the EPA's statements listed above.

- The EPA specifically evaluated streptomycin's impact on pollinators, such as bees, and concluded that there are no risks.
- The EPA's decision was preceded by a thorough evaluation.
- Exposure to streptomycin through citrus crops poses considerable risks to human health.
- The policy is unlikely to result in streptomycin resistance which would endanger hu-

mans in clinical settings.

I.2.5 Trump Block (No EPA)

Note: This block appeared only for participants assigned to the Trump treatment group and were assigned NOT to see the EPA mentioned explicitly.

The relevant regulatory agency issued a final authorization decision, **allowing U.S. farmers to spray large quantities of the antibiotic streptomycin** on **citrus crops** to combat citrus greening.

The authorization decision was supported by the administration of President **Donald Trump**.

In particular, the regulatory agency under the administration of President **Donald Trump** provided arguments and **scientific evidence** supporting the position that **antibiotic spraying of citrus crops** poses **little risk** and "meets the regulatory and safety standards."

In the years following the final authorization decision, considerable efforts have been made to overturn the antibiotic spraying policy in the courts. **Despite the legal challenge**, spraying of streptomycin on citrus crops was **permitted to continue** as of December 2023. Additionally, applying other antibiotics on citrus crops, such as oxytetracycline, is permitted under separate regulations.

Note: The images shown were identical to those shown in the Trump (EPA) block, except the captions were replaced with "Donald Trump with his agency head Andrew Wheeler." and "Donald Trump appointed agency head Andrew Wheeler." respectively. Participants saw only one of these images depending on whether they were assigned to see portraits (the right image) or an image of the president with their EPA head (left image).

According to the text above, the relevant regulatory agency provided scientific evidence in favor of antibiotic spraying of citrus crops under the administration of which president?

- Barack Obama
- Joe Biden
- Donald Trump
- George W. Bush

Which of the following statements are true? Select **all** that apply.

- The policy allowing spraying of citrus crops with antibiotics continues until this day.
- Farmers need to apply for a special permit before they can start spraying their crops.
- The relevant regulatory agency argued that antibiotic spraying of citrus crops poses

little risk and meets safety standards.

Note: The information and questions below appeared on the following page of the survey, accompanied by the same photo that was displayed above.

Below, we list several statements backed by **scientists from the regulatory agency** in favor of streptomycin spraying of citrus crops.

1. The relevant regulatory agency"**thoroughly evaluated** both ecological and **human health** risks, including the potential development of **antibiotic resistance** in human and in plant pathogens."

2. "Streptomycin is practically **non-toxic** and poses **limited risk**."

3. The agency "concluded that it is '**unlikely**' that any current **resistance to streptomycin** in 'clinical' applications, i.e., human pharmaceuticals, '**is due to streptomycin's use in agriculture.**'"

4. The agency "also conducted risk assessments to **evaluate the risk to human health**, concluding there are **'no risks of concern.'**"

5. The regulatory agency "found **no evidence** that streptomycin was a carcinogen, [...], no residual exposure concerns, [...] and no indication of a dermal hazard."

Select **all** points covered by the relevant regulatory agency's statements listed above.

- The relevant regulatory agency specifically evaluated streptomycin's impact on pollinators, such as bees, and concluded that there are no risks.
- The relevant regulatory agency's decision was preceded by a thorough evaluation.
- Exposure to streptomycin through citrus crops poses considerable risks to human health.
- The policy is unlikely to result in streptomycin resistance which would endanger humans in clinical settings.

I.2.6 Biden Block (EPA)

Note: This block appeared only for participants assigned to the Biden treatment group and were assigned to see the EPA mentioned explicitly.

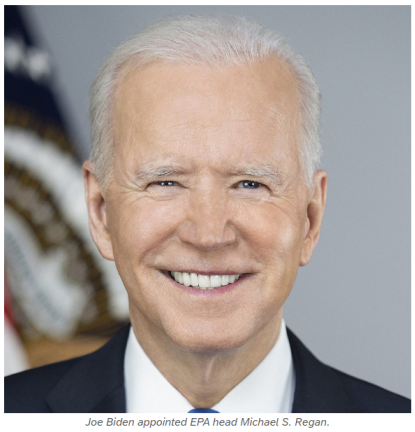
The Environmental Protection Agency (EPA) issued a final authorization decision, **allowing U.S. farmers to spray large quantities of the antibiotic streptomycin** on **citrus crops** to combat citrus greening.

The authorization decision was supported by the administration of President **Joe Biden**.

In particular, the EPA under the administration of President **Joe Biden** provided arguments and **scientific evidence** supporting the position that **antibiotic spraying of citrus crops** poses **little risk** and "meets the regulatory and safety standards."

In the years following the final authorization decision, considerable efforts have been made to overturn the antibiotic spraying policy in the courts. **Despite the legal challenge**, spraying of streptomycin on citrus crops was **permitted to continue** as of December 2023. Additionally, applying other antibiotics on citrus crops, such as oxytetracycline, is permitted under separate regulations.

Joe Biden with his EPA head Michael S. Regan.



Joe Biden appointed EPA head Michael S. Regan.

Note: Participants saw only one of these images depending on whether they were assigned to see portraits (the right image) or an image of the president with their EPA head (left image).

Note: The remainder of this block was identical to the Trump (EPA) block following the photos.

I.2.7 Biden Block (No EPA)

Note: This block appeared only for participants assigned to the Biden treatment group and were assigned NOT to see the EPA mentioned explicitly.

The relevant regulatory agency issued a final authorization decision, **allowing U.S. farmers to spray large quantities of the antibiotic streptomycin** on **citrus crops** to combat citrus greening.

The authorization decision was supported by the administration of President **Joe Biden**.

In particular, the regulatory agency under the administration of President **Joe Biden** provided arguments and **scientific evidence** supporting the position that **antibiotic spraying of citrus crops** poses **little risk** and "meets the regulatory and safety standards."

In the years following the final authorization decision, considerable efforts have been made to overturn the antibiotic spraying policy in the courts. **Despite the legal challenge**, spraying of streptomycin on citrus crops was **permitted to continue** as of December 2023. Additionally, applying other antibiotics on citrus crops, such as oxytetracycline, is permitted under separate regulations.

Note: The images shown were identical to those shown in the Biden (EPA) block, except the captions were replaced with "Joe Biden with his agency head Michael S. Regan." and "Joe Biden appointed agency head Michael S. Regan." respectively. Participants saw only one of these images depending on whether they were assigned to see portraits (the right image) or an image of the president with their EPA head (left image).

Note: The remainder of this block was identical to the Trump (No EPA) block following the photos.

I.2.8 US Citrus Industry Information

Note: This block appeared for all participants.

According to a 2023 United States Department of Agriculture (USDA) report, almost all commercial citrus (oranges, lemons, etc.) production in the United States occurs in Florida, California, Texas and Arizona. The policy allowing streptomycin spraying on citrus crops remained in force in these states as of December 2023.

Citrus production in the United States.

In which of these states is it likely that a significant amount of streptomycin spraying on citrus crops occurred in 2023? Select **all** that apply.

- Texas
- North Carolina
- Ohio
- Florida

I.2.9 Donation to USPIRG

Note: This block appeared immediately after the US Citrus Industry Information block for those assigned to see the donation task before the Policy and Trust Questions. For participants assigned to see the Policy and Trust Questions first, this block appeared immediately after the Policy and Trust Questions block.

This is your chance to support reducing antibiotic usage in agriculture.

The United States Public Interest Research Group (USPIRG) is a nonpartisan, non-profit organization that advocates against streptomycin spraying on citrus crops. For 40 years, USPIRG has been advocating for the public interest on "problems that affect the public's health, safety and wellbeing."

We are offering all participants an **additional bonus sum of $1**. You may give as much of this bonus as you like to USPIRG and keep the rest for yourself. The amount kept for yourself will be paid through Prolific.

Using the slider below, please choose how much of the bonus you would like to **give to** USPIRG to **oppose antibiotics spraying** on citrus crops.
Note: Participants were required to choose any amount between $0 and $1 using a slider, with precision to two decimal places. The slider was labeled "Donation in $" on the left hand side.

I.2.10 Policy and Trust Questions

We will now ask you a few questions about the policy of spraying citrus crops with antibiotics in order to fight citrus greening. There are no "right" answers. We would appreciate if you provide honest answers to the questions.

To what extent do you agree with the following statements about the **policy of spraying citrus crops with antibiotics in order to fight citrus greening**?

- The policy is safe as it is endorsed by the relevant government agency.
- The policy has negative consequences on people's health.
- The agency that authorized the policy is located in a semi-detached house on the South Pole.
- I think that antibiotic spraying of citrus crops should be outlawed.
- I support the policy as it helps protect the economy with no major risks involved.

Note: The order in which the statements were displayed was randomized. For each statement, participants were required to choose any integer between 0 and 100 using a slider. Five

labels were provided: "Strongly disagree" (0), "Somewhat disagree" (25), "Neither agree nor disagree" (50), "Somewhat agree" (75), "Strongly agree" (100).

To what extent do you agree with the following statements about the arguments in favor of and against the **policy of spraying citrus crops with antibiotics in order to fight citrus greening**?

- I trust the EPA which determined that the policy is safe. *[Note: for those assigned to not see the EPA mentioned, "EPA" was replaced by "relevant regulatory agency".]*
- The arguments provided by the opponents of the policy were convincing.
- The scientific evaluation conducted by the EPA was thorough and I trust it. *[Note: for those assigned to not see the EPA mentioned, "EPA" was replaced by "relevant regulatory agency".]*
- The opponents of the policy are scaremongering.

Note: This question appeared only for participants assigned to either the Trump or Biden treatment groups. The order in which the statements were displayed was randomized. For each statement, participants were required to choose any integer between 0 and 100 using a slider. Five labels were provided: "Strongly disagree" (0), "Somewhat disagree" (25), "Neither agree nor disagree" (50), "Somewhat agree" (75), "Strongly agree" (100).

I.2.11 Planned Consumption

Note: The following questions were displayed only to those assigned to be asked the planned consumption question.

We will now ask you a few questions about your grocery shopping. There are no "right" answers. We would appreciate if you provide honest answers to the questions.

How likely are you to purchase orange-based products (such as orange juice) or other citrus-based products in the **upcoming month**?

Note: Participants were required to choose any integer between 0 and 100 using a slider labeled "likelihood" on the left hand side. Five labels were provided: "Very unlikely" (0), "Somewhat unlikely" (25), "Neither likely nor unlikely" (50), "Somewhat likely" (75), "Very likely" (100).

To what extent do you agree with the following statements **when considering whether to purchase citrus-based products in the upcoming month**?

- I am concerned about the health effects of directly consuming citrus products.
- I am concerned about contributing to antibiotic resistance in bacteria.

Note: This question was displayed on the page following the previous question. The order in which the statements were displayed was randomized. For each statement, participants were required to choose any integer between 0 and 100 using a slider. Five labels were provided: "Strongly disagree" (0), "Somewhat disagree" (25), "Neither agree nor disagree" (50), "Somewhat agree" (75), "Strongly agree" (100).

I.2.12 Politics Questions

To what extent do you agree with the following statement?

- The presidential administration put pressure on the EPA to make scientific claims about streptomycin spraying that benefit the agricultural industry.

Note: This question was displayed only to those in the Trump and Biden treatment groups. For those assigned to not see the EPA mentioned, "EPA" was replaced by "relevant regulatory agency". Participants were required to choose any integer between 0 and 100 using a slider. Five labels were provided: "Strongly disagree" (0), "Somewhat disagree" (25), "Neither agree nor disagree" (50), "Somewhat agree" (75), "Strongly agree" (100).

What percentage of the following groups support the policy of spraying citrus crops with antibiotics in order to fight citrus greening?

BONUS: for each question, if your answer is within +/- 3 percentage points of the true value (as taken from a representative survey), you will receive an additional bonus sum of $0.25, to be paid through Prolific. If any of your answers were sufficiently close, you will be informed about your total bonus at the end of the survey.

- % Republicans who support the policy
- % Democrats who support the policy

Note: For each question, participants were required to choose any integer between 0 and 100 using a slider.

To what extent do you agree with the following statements?

- I will vote in the 2024 presidential elections.
- I support the Democratic Party for Congress.
- I will vote for Donald Trump if he is on the ticket in the 2024 presidential elections.

Note: For each statement, participants were required to choose any integer between 0 and 100 using a slider. Five labels were provided: "Strongly disagree" (0), "Somewhat disagree" (25), "Neither agree nor disagree" (50), "Somewhat agree" (75), "Strongly agree" (100).

We would like to ask you about your feelings toward Democrats and Republicans. Please rate them using the scales below.

Higher ratings mean that you feel warmer and more favorable toward them.

- Democrats
- Republicans

Note: Participants were required to indicate their feelings on a scale from 0 to 100 using a slider. Five labels were provided: "Very cold feeling" (0), "Quite cold feeling" (25), "No feeling at all" (50), "Quite warm feeling" (75), "Very warm feeling" (100).

I.2.13 Experiment Questions and Conclusion

Before taking this survey, how familiar were you with the following issues?

- Antibiotic-resistant pathogens and their risk to human health
- Citrus greening disease
- Antibiotic spraying to fight citrus greening

Note: Participants were required to choose any integer between 0 and 100 using a slider. Five labels were provided: "Never heard of the issue" (0), "Mostly unfamiliar" (25), "Quite unfamiliar" (50), "Somewhat familiar" (75), "Very familiar" (100).

What are the first three words that come to your mind when you think of this survey's subject matter?

- Word 1 *[Note: Text entry]*
- Word 2 *[Note: Text entry]*
- Word 3 *[Note: Text entry]*

To what extent do you agree with the following statements?

- The arguments in favor and against the policy of antibiotic spraying were presented in a balanced way.
- I felt pressure to answer the survey questions in a particular way.

Note: This question appeared only for those assigned to either the Trump or Biden groups. For each statement, participants were required to choose any integer between 0 and 100 using a slider. Five labels were provided: "Strongly disagree" (0), "Somewhat disagree" (25), "Neither agree nor disagree" (50), "Somewhat agree" (75), "Strongly agree" (100).

In the question for a bonus, you answered 1 correctly. You will receive a bonus sum of $0.25 via Prolific.

Note: This appeared only for participants who answered exactly one of the partisan beliefs questions correctly within the 3 pp tolerance.

In the question for a bonus, you answered 2 correctly. You will receive a bonus sum of $0.50 via Prolific.

Note: This appeared only for participants who answered both of the partisan beliefs questions correctly within the 3 pp tolerance.

I.3 Follow-up Survey

The survey begins with a short demographics section. Participants were asked about age, state of residence, ethnicity, martial status, employment status, digital platforms used for entertainment, media used to learn about current affairs, frequency of ordering take-out, and preference for buying groceries in-store or having them delivered home.

I.3.1 Decoy

We want to ask you some questions about grocery store products and brands.

What is your favorite soda?

- Coca-Cola
- Pepsi
- Diet Coke
- Coke Zero
- Dr Pepper
- Mountain Dew
- Sprite
- Fanta
- Diet Pepsi
- Diet Mountain Dew
- 7Up

- Sunkist
- Starry/Sierra Mist
- Other
- I don't drink soda

What is your preferred brand of butter or margarine?

- Land O'Lakes
- Kerrygold
- I Can't Believe It's Not Butter
- Country Crock
- Shedd's
- Darigold
- Move Over Butter
- Imperial
- Smart Balance
- Organic Valley
- Store brand
- Other
- I don't use butter or margarine

What is your preferred brand of shampoo?

- Pantene
- Garnier
- Herbal Essences
- Head and Shoulders
- Dove
- TRESemmé
- Redken
- Suave
- OGX
- Store brand
- Other

We want to know if you recall seeing any advertisements for the products, whether it be on TV, social media, billboards or other.

You said that your favorite soda was X. Do you recall seeing any advertisements for this product in the past week?

- Yes
- No

Note: This question appeared only to those participants who did not answer "Other" or "I don't drink soda" to the question "What is your favorite soda?". X was replaced by the participant's answer to that question.

Do you recall seeing any advertisements for Coca-Cola in the past week?

- Yes
- No

Note: This question appeared only to those participants who answered "Other" or "I don't drink soda" to the question "What is your favorite soda?".

In the past week, do you recall seeing any advertisements for any of these butter or margarine brands?

- Kerrygold
- Smart Balance
- I Can't Believe It's Not Butter
- Darigold
- Imperial

Note: For each brand, participants were required to select one of the following options: "Yes", "No".

In the past week, do you recall seeing any advertisements for these juice brands?

- Tropicana
- Florida's Natural
- Minute Maid
- Ocean Spray
- Simply

Note: For each brand, participants were required to select one of the following options: "Yes", "No".

In the past week, do you recall seeing any advertisements for these shampoo brands?

- Pantene
- Head and Shoulders
- Suave
- Dove
- TRESemmé

Note: For each brand, participants were required to select one of the following options: "Yes", "No".

Have you heard of the following brands? The product type is in brackets.

- Liquid Death (water)
- InkiPenki (stationery)
- GFuel (energy drink)
- Aussie (toiletries)

Note: For each brand, participants were required to select one of the following options: "Yes", "No".

I.3.2 Multiple Price List Introduction

Now, we would like to offer you a bonus payment for your participation in the study.

It will be **either**:

- a small cash bonus, or
- a gift card for **one of the products** from the brands that we asked you about in the previous section.

For the latter option, please note that the gift card will be for **Amazon** and will **only** work for that type of product.

Your answers to the next few questions will determine the type and the amount of your bonus.

If you receive a gift card as a bonus, we will provide you with the gift card link **immediately**, and you will be able to use it without delay. You can apply the gift card directly to your Amazon account. Note that you will **not** be required to provide us with any personal information such as email address.

I.3.3 Shampoo Product Introduction

Note: This section appeared only for those assigned to do the MPL with Pantene shampoo products.

The computer randomly selected a product from the brands we asked you about in the previous section of the survey.

Your product is: **Pantene shampoo products**.

Below, we will ask you a series of questions where you need to pick between:

- a cash bonus of a particular amount or,

- an $8 gift card for Pantene shampoo products.

Please note that both the cash bonus and the $8 gift card are **REAL** incentives (you will receive one of them). These are not hypothetical questions.

Consider your answers carefully because the computer will randomly select one of the following questions and give you what you chose in that question.

Click here to learn more about the randomization process.

Note: If participants clicked "here", it would cause the following dot points to be displayed:

- *The computer will randomly select a value of the cash bonus between $0.5 and $8 with increments of $0.5 (i.e., $0.5, $1, $1.5, ..., $7, $7.5, $8). Each value is equally likely.*
- *If your answers on the next few screens indicate that you prefer a cash bonus of the selected value over an $8 gift card for Pantene shampoo products, you will receive the cash bonus.*
- *If your answers on the next few screens indicate that you prefer an $8 gift card for Pantene shampoo products over a cash bonus of the selected value, you will receive the $8 gift card for Pantene shampoo products.*

I.3.4 Orange Juice Product Introduction

Note: This section appeared only for those assigned to do the MPL with Tropicana orange juice.

The computer randomly selected a product from the brands we asked you about in the previous section of the survey.

Your product is: **Tropicana orange juice**. Tropicana is a U.S. based brand of orange juice founded in Florida in 1947.

Below, we will ask you a series of questions where you need to pick between:

- a cash bonus of a particular amount or,
- an $8 gift card for Tropicana orange juice.

Please note that both the cash bonus and the $8 gift card are **REAL** incentives (you will receive one of them). These are not hypothetical questions.

The gift card can only be used for the selected type of product and will be **valid for 12 months**. Don't worry! Amazon can ship Tropicana orange juice throughout the US. In the unlikely event that it is unavailable, Amazon will be able to ship brands of orange juice and other citrus drinks of similar quality.

Consider your answers carefully because the computer will randomly select one of the

following questions and give you what you chose in that question.

Click here to learn more about the randomization process.

- *The computer will randomly select a value of the cash bonus between \$0.5 and \$8 with increments of \$0.5 (i.e., \$0.5, \$1, \$1.5, ..., \$7, \$7.5, \$8). Each value is equally likely.*
- *If your answers on the next few screens indicate that you prefer a cash bonus of the selected value over an \$8 gift card for Tropicana orange juice, you will receive the cash bonus.*
- *If your answers on the next few screens indicate that you prefer an \$8 gift card for Tropicana orange juice over a cash bonus of the selected value, you will receive the \$8 gift card for Tropicana orange juice.*

Please select **all** that apply.

- The gift card will enable me to get an \$8 discount on Tropicana orange juice and is valid for 12 months.
- I can use the gift card for any product, such as chocolate.
- Depending on my answers to the following questions, I will receive either a cash bonus or a gift card for orange juice.

I.3.5 MPL Questions

Please click on the choice that you prefer. Think carefully, if the computer randomly selects this question, you will receive what you choose below.

- A cash bonus of **\$X**$_t$.
- An **\$8** gift card for Y.

Note: Y was replaced by the product that the participant was assigned to see (either "Pantene shampoo products" or "Tropicana orange juice"). Participants saw this question multiple times, with t=1,2,3,4. The values of X_t followed the following logic:

X_1=4

- *If cash selected, then X_2=2*
  - *If cash selected, then X_3=1*
    - *If cash selected, then X_4=0.5*
    - *If card selected, then X_4=1.5*
  - *If card selected, then X_3=3*
    - *If cash selected, then X_4=2.5*
    - *If card selected, then X_4=3.5*
- *If card selected, then X_2=6*

- *If cash selected, then X_3=5*
  - *If cash selected, then X_4=4.5*
  - *If card selected, then X_4=5.5*
- *If card selected, then X_3=7*
  - *If cash selected, then X_4=6.5*
  - *If card selected, then X_4=7.5*

You said that you prefer an $8 gift card for Y over a cash bonus of $7.5. Please state the cash bonus that would make you equally happy as receiving an $8 gift card for Y. Think carefully, as your decision may affect the type of bonus that you receive.

Note: Participants were required to enter a numeric value no smaller than 7.5 with up to two decimal places. This question appeared only for those who selected "An $8 gift card for Y" over "A cash bonus of $7.5". Y was replaced by the product that the participant was assigned to see.

Lastly, please click on the choice that you prefer.

- A cash bonus of **$0**.
- An **$8** gift card for Y.

Note: This question appeared only for those who selected "A cash bonus of $0.5" over "An $8 gift card for Y". Y was replaced by the product that the participant was assigned to see.

I.3.6 MPL Result and Conclusion

In the previous questions, you were asked to choose between a cash bonus and a gift card for a particular product. Please write down the name of the product as you remember it.

Note: Text entry.

The computer randomly selected one of the possible questions. The selected question corresponds to the cash bonus value of $X.

Your **choices indicate** that you **prefer** the randomly selected cash bonus of $X over an $8 gift card for Y. Therefore, you will receive the cash bonus.

You will receive your cash bonus payment via Prolific on top of your normal compensation for this survey.

Note: X was randomly selected from {0.5, 1, 1.5,...,8} with equal probability. The above text appeared only for those whose MPL answers indicated they prefer the randomly selected cash bonus over the gift card. Y was replaced by the product that the participant was assigned to see.

The computer randomly selected one of the possible questions. The selected question corresponds to the cash bonus value of $X.

Your **choices indicate** that you **prefer** an $8 gift card for Y over the randomly selected cash bonus of $X. Therefore, you will receive the gift card.

Below, we provide your unique Amazon gift card link. You can use this gift card when shopping on Amazon. The gift card's value is $8.

If you have any questions or issues related to using your gift card, please contact jgars87@ufl.edu.

Please record the link and the email address so that you can use them in the future. Please apply the gift card to your Amazon account **only after** you complete the survey and finalize your Prolific submission.

You can click the gift card link HERE.

We also provide the link in text: Z

Note: X was randomly selected from {0.5, 1, 1.5,...,8} with equal probability. The above text appeared only for those whose MPL answers indicated they prefer the gift card over the randomly selected cash bonus. Y was replaced by the product that the participant was assigned to see. Z was replaced with the URL for the product-specific Amazon gift card. Clicking "HERE" opened the URL.

We have a few final questions for you.

When was the last time that you purchased orange juice?

- Less than 3 days ago.
- 4-7 days ago.
- 8-14 days ago.
- More than two weeks ago.
- I never buy orange juice.