

Promoting Civic Health in a Polarized Era:
Finding Common Ground about the Climate Impact of Meat

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Abstract

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Political polarization in the United States has intensified in recent decades, with affective polarization often exceeding ideological disagreement. Despite growing public discourse and debate about food systems and climate change, there is limited peer-reviewed research exploring these dynamics at the “meat-climate” nexus. Through a national survey of 2,518 U.S. adults conducted in January 2026, this thesis addresses that gap by assessing Americans’ values, concerns, and solution preferences related to meat and climate change, comparing responses across political affiliations, identifying sociodemographic correlates, and quantifying cross-partisan perception gaps. Findings indicate that across political affiliations, most Americans perceive meat eating as a personal choice, and do not want to follow expert advice or a government recommendation to decrease meat consumption for the benefit of others or the planet. Americans across parties also display support for improving the sustainability of meat production practices. These results highlight areas of common ground that may inform communication strategies aimed at promoting civic health by reducing affective polarization.

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1. Introduction:

Human activities have unequivocally caused global warming, and over 99% of climate scientists agree that anthropogenic greenhouse gas (GHG) emissions are responsible.¹⁻³ Food systems contribute roughly one quarter to one third of global emissions,^{4,5} with livestock responsible for an estimated 12 – 19.6% of global emissions.⁶⁻¹¹ Livestock production emits GHGs like methane (CH₄), nitrous oxide (N₂O) and carbon dioxide (CO₂) through enteric fermentation, manure management, fertilizer use for feed crops, land-use change, and energy use across the supply chain.⁷

There are debates among scientists over the impact of meat on climate change. CH₄ and N₂O have much shorter lifetimes (around 12 and 120 years, respectively) than CO₂, which can persist for centuries to millennia,^{12,13} and 69% of livestock emissions come from these GHGs (54% CH₄, 15% N₂O).⁷ Researchers debate whether expressing all gases in “CO₂-equivalents” appropriately reflects differences in warming intensity and lifetime, with some arguing that this metric overstates the impact of short-lived GHGs, and proposing alternatives such as GWP*.^{14,15} Additionally, some express concerns over the broad statement that all meat products have high GHG emissions, since there is variability in emissions based on production methods.^{16,17}

Despite these valid debates, many scientific assessments identify livestock-related emissions as a major mitigation opportunity.¹⁸⁻²¹ This is particularly because reducing CH₄ offers the fastest pathway to slow warming, with prediction models estimating that meat production alone may contribute to 0.2–0.44°C of warming by the century’s end,²⁰ and that existing CH₄ mitigation strategies can prevent 255,000 premature deaths and 26 million tonnes of annual crop losses by the 2040s.²²

Reducing GHG emissions through changes in meat production and consumption is particularly relevant to the United States, which is the world's second largest beef producer,²³ and consistently ranks among countries with the highest per capita meat consumption.^{5,24} Mitigation measures could reduce GHG emissions from US beef production by up to 30%,²⁵ and even modest changes, such as avoiding meat from the diet one day a week, could reduce meat-related GHG emissions by 14%.¹⁶ Despite extensive evidence, many Americans remain skeptical of the connection between meat and climate change. While 69% of Americans believe that global warming is happening, roughly three-quarters don't think that eating meat is linked to climate change,²⁶⁻²⁸ and a similar share does not consider the environmental footprint of their food when making dietary decisions.²⁹

There is some evidence suggesting that the issue of meat and climate change has become politically polarized,³⁰⁻³² but the media tends to frame this issue as extremely divided. However, some of this perceived extreme division may reflect misperceptions of polarization rather than substantial differences in underlying beliefs, a trend that has been identified across a wide range of politically relevant topics.³³ Ideological and affective polarization have increased in the United States in recent decades.³⁴ Ideological polarization refers to differences in policy preferences and has grown most sharply among political elites, as reflected in legislative voting patterns and party alignment.³⁴⁻³⁶ The public, however, is less ideologically divided than commonly assumed, but exhibits high levels of affective polarization,^{34,37} which refers to emotional hostility between members of opposing political parties, rooted in partisan identity rather than policy disagreement.^{38,39}

Affective polarization is considered more destabilizing to democratic functioning than ideological polarization because it erodes social trust and tolerance of political opposition.³⁴

Additionally, work exploring “perception gaps” (the differences between what people from one group actually believe and what members of the opposing group think they believe) shows that Americans routinely misjudge the views of those on the other side of the political spectrum.³³ The More in Common Perception Gap studies find that these misperceptions are largest on issues symbolically tied to partisan identity and much smaller on issues that are less central to political narratives.³³ In many cases, Democrats and Republicans hold more similar views than they assume, yet each side significantly underestimates the extent to which the other side agrees with them.³³

Although public polling has explored Americans’ views on food-system topics such as organic foods,⁴⁰ plant-based alternatives,²⁷ and food-related political initiatives,⁴¹ research examining political polarization specifically around the “meat-climate” nexus remains limited. As a result, food system professionals lack a clear understanding of the extent of common ground or differences on this issue. There is a need for research that clarifies whether polarization around meat and climate change reflects genuine divisions or merely perceived ones. Understanding the degree to which Americans actually agree or disagree, and whether they systematically underestimate each other’s views, is essential for identifying areas of common ground and for designing strategies that build support where consensus already exists. Additionally, increasing awareness of shared views on topics assumed to be divisive can help reduce affective polarization.⁴² Determining whether polarization is real, and if so to what extent, or whether substantial common ground exists, requires evidence that is both representative and comparable across groups. A national survey provides the most reliable way to answer these questions, offering a comprehensive assessment of public attitudes and the perception gaps that shape them.

This thesis analyzes data from a nationally representative survey to examine whether political affiliation is associated with Americans' perceptions of the impacts of meat production and consumption on climate change. This thesis aims to clarify the extent to which Americans are ideologically and affectively polarized, or share common ground, on the topic of meat and climate through the following research questions:

Research Question 1: What are Americans' values-based views, concerns, and preferred solutions related to meat and climate issues?

Research Question 2a: How are Americans' values-based views, concerns, and preferred solutions about meat and climate issues distributed by political affiliation? For which values, concerns, and solutions is there greater common ground or polarization based on political affiliation?

Research Question 2b: How do Americans with different political affiliations, including those unsure of their affiliation, differ in their values-based views, concerns, and preferred solutions, when adjusting for age, gender, education, and urbanicity? To what extent do these sociodemographic factors moderate the relationship between political identity and polarization or common ground on meat-related climate issues?

Research Question 3: To what extent do Democrats and Republicans mis-perceive the values-based views of those with opposing political affiliations as it relates to meat and climate issues?

By identifying areas of common ground, this work may inform future communication and engagement strategies aimed at mitigating affective polarization on the topic of meat and climate change in the United States.

2. Methods:

2. 1. Sample and Procedure:

To develop and field the national survey, the research team worked with More in Common (MIC), an independent nonprofit organization that specializes in public opinion polling that identifies areas of common ground within contentious topics. The study sample was adults in the United States. The survey was administered in English on the CMix survey platform from January 14th – January 23rd, 2026. Participants had to be over the age of 18 to complete the survey. A total of n=8,013 respondents were contacted for this survey. A total of n=1,007 abandoned the survey and were not included in the final sample. Additionally, a total of n=4,483 were terminated due to speed checks, attention checks, quota management, and other data quality checks. The final study sample consisted of n=2,523 participants.

A non-probability, opt-in quota sampling strategy was used. The web-based survey was made available for individuals from the Dynata online panel based on profiling information shared at the time of registration. Individuals were provided information on the expected time survey completion could take, and could opt-in to participate in the survey.

2. 2. Survey Instrument Development and Design:

The development of the survey instrument followed a multi-stage process designed to maximize content validity and reduce measurement error. Stages of survey development included a literature review, clarification of the construct definition (Figure 1), iterative evaluation by experts in survey design, and pilot testing with target respondents.

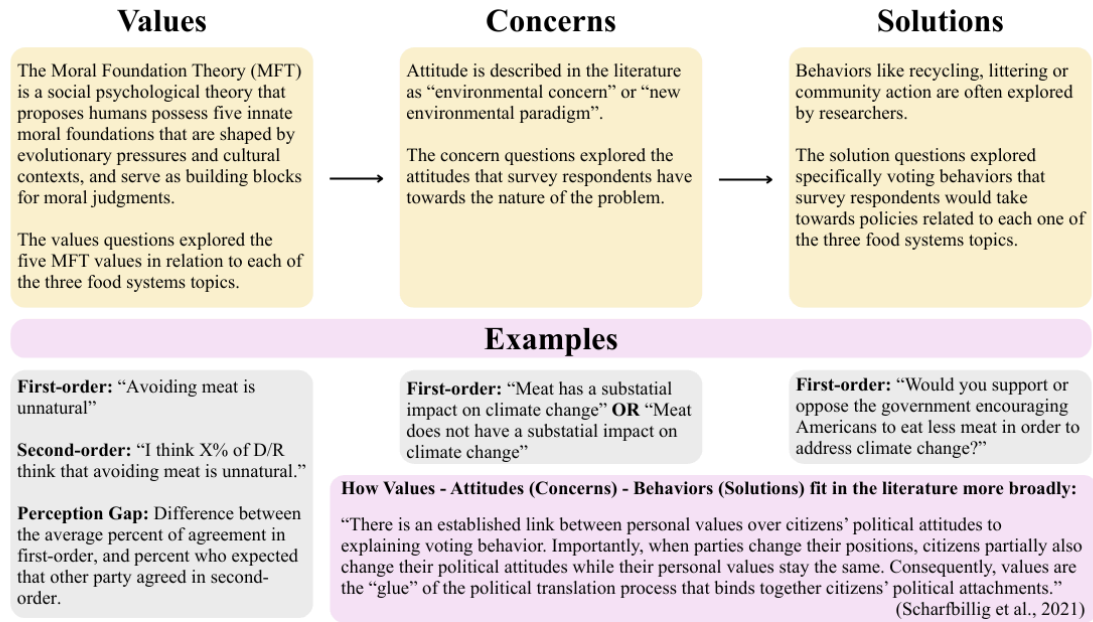


Figure 1: Construct Definition for Survey Instrument Development.⁴³

2. 2. 1. Literature Review and Construct Definition:

Based on a review of existing survey instruments and the polarization literature, we identified three primary constructs to measure with the survey questions: values, concerns, and solutions. The topics covered in the survey questions (meat sustainability, ultra-processed foods, and SNAP) were based on a review of the peer-reviewed literature and of public opinion polls and surveys published in the last six years (2020 – 2026). Survey items were drafted to be neutral and concise, adhering to best practices in survey question design. The overall survey included 58 questions (approximately 20 minutes). The analysis presented here focuses on the six survey questions related to meat and climate change, and also uses variables the demographic and partisan group questions.

Survey questions related to demographic characteristics and political values were adapted from existing surveys and public opinion polls. Survey questions asking about first-order and second-order beliefs related to meat sustainability, ultra-processed foods, and SNAP were

developed by the research team. Some of these questions were informed by existing surveys and public opinion polls, although the questions did not use any exact wording from other survey tools. The survey instrument was designed to be suitable for respondents with diverse educational backgrounds.

2. 2. 1. 1. Values Questions:

The values questions explored respondents' first-order beliefs ("what I think"),⁴⁴ and second-order views ("I think others think"),⁴⁴ through five original statements that reflected each of the five Moral Foundations Theory (MFT) values: harm/care, fairness/cheating, loyalty/betrayal, authority/subversion and sanctity/degradation.⁴⁵

MFT is a social psychological theory that proposes humans possess five innate moral foundations that are shaped by evolutionary pressures and cultural contexts, and serve as building blocks for moral judgments.^{45,46} These foundations are theorized to explain the diversity of moral values across political ideologies, with evidence suggesting that liberals and conservatives rely on different sets of moral foundations.⁴⁷ While the exact terminology has changed slightly since the theory was first developed,⁴⁵ the five moral foundations are:

Harm/Care: This foundation centers on empathy, compassion, and the instinct to protect others from suffering. It motivates people to value kindness, nurture the vulnerable, and oppose cruelty or neglect.⁴⁶

Fairness/Cheating: This foundation is about justice, equality, and proportionality. It drives concerns about whether people are playing by the rules, treating others fairly, and receiving what they deserve, or exploiting the system.⁴⁶

Loyalty/Betrayal: This foundation emphasizes commitment to one's group, community, or nation. It values solidarity, patriotism, and standing with "our side," while condemning disloyalty, desertion, or betrayal.⁴⁶

Authority/Subversion: This foundation focuses on respect for tradition, leadership, and legitimate social order. It supports obedience to rules and institutions, while viewing rebellion or disrespect for authority as destabilizing.⁴⁶

Sanctity/Degradation: This foundation relates to purity, cleanliness, and the desire to protect the body or society from contamination, whether physical, moral, or symbolic. It underlies feelings of disgust and ideals of elevation, sacredness, or self-control.⁴⁶

In addition to including survey questions about values, we also included survey questions related to attitudes and behaviors, drawing from the Values–Attitudes–Behaviors (VAB) theory. The MFT provided a theoretically grounded way to capture core value orientations that are associated with attitudes and beliefs.

A Likert-scale with four answer choices (strongly agree, somewhat agree, somewhat disagree and strongly disagree) was used for the values-based questions. Neutral response options were omitted to encourage directional responses, consistent with prior Moral Foundations Questionnaire formats;⁴⁸ however, this approach may limit the ability to capture genuine ambivalence among some respondents. While the original Full Version Item Moral Foundations Questionnaire included six options (strongly disagree, moderately disagree, slightly disagree, slightly agree, moderately agree, strongly agree),⁴⁸ this survey provided four options to reduce the survey's cognitive load.

Respondents' second order values-based views were explored with the same set of values-based statements. For each statement, participants were given a continuous scale from 0%

to 100%, with the starting point at the halfway mark (50%). Participants could move the slider to the left (towards 0%) or the right (towards 100%) to reach their estimated guess. Participants who identified as Democrats were asked to guess what percent of Republicans agree with each statement. Participants who identified as Republicans were asked to guess what percent of Democrats agree with each statement. Participants who identified politically as Independents, “Other,” or “Not sure” were randomly assigned to guess about either Democrats or Republicans, with assignment split evenly across the two target groups.

First-order values were assessed with the following question: *How much do you agree or disagree with the following statements?* Second-order values were assessed with the following question: *If you had to guess, what percentage of [Democrats/Republicans] agree that...* Both questions had the same five values-based statements, which were:

Harm/Care: I shouldn’t have to give up meat for the benefit of other people.

Fairness/Cheating: If eating meat is criticized more than other personal choices, that’s a double standard.

Loyalty/Betrayal: Choosing not to eat meat feels like turning your back on communities that depend on ranching.

Authority/Subversion: We shouldn’t blindly follow experts who say eating less meat helps the planet.

Sanctity/Degradation: Avoiding meat is unnatural.

The second order values were assessed to provide insight into the perception gaps between Democrats and Republicans. The perception gap was calculated by comparing Republican’s actual views (i.e., with the percent of Republicans who strongly agreed or agreed

with a statement) with Democrats' estimates of Republican viewpoints (i.e., the average percent of Republicans, as estimated by Democrats) and vice-versa.

2. 2. 1. 2. Concern Questions:

The survey explored participants' general concerns about the impact of meat on climate change with a question that was answered by all participants:

Concern Question: Please share your perspective on the environmental impact of meat consumption. Choose the statement that comes closest to your own views – even if none is exactly right.

- A. Meat has a substantial impact on climate change
- B. Meat does not have a substantial impact on climate change

The answer to the main concern question determined the subsequent question that participants were asked. Participants who answered “Meat has a substantial impact on climate change” were asked:

Follow-up question for those who said “Yes” above: What concerns you most about the impacts of meat on climate change?

- A. The way we produce meat in the US
- B. The amount of meat we eat in the US
- C. The types of animals we raise for meat in the US
- D. I'm not sure

Participants who answered “Meat does not have a substantial impact on climate change” were asked:

Follow-up question for those who said “No” above: Please choose the statement that comes closest to your own views – even if none is exactly right.

- A. The climate impact of meat is overstated
- B. Other sectors, like energy, are more important
- C. Meat production can be sustainable with the right practices
- D. Climate change is not a priority for me
- E. I’m not sure

2. 2. 1. 2. Solution Questions: The survey explored participants’ level of support for government involvement in encouraging decreased meat consumption to address climate change.

Solution Question #1: Some people think the government should encourage Americans to eat less meat in order to address climate change. Would you support or oppose such a recommendation?

- A. Strongly support
- B. Somewhat support
- C. Somewhat oppose
- D. Strongly oppose

Respondents were then asked to report their top two concerns about efforts to get people to eat less meat for climate reasons. For this question, participants had the option to choose “I don’t have any of these concerns” to inform researchers about which topics Americans have or do not have a more formulated opinion on proposed solutions.

Solution Question #2: There are efforts to get people to eat less meat for climate reasons. What concerns you most about these efforts? Select up to two.

- A. It threatens job security for people who work in the meat industry
- B. It undermines people's ability to make their own food choices
- C. It feels like government overreach
- D. It politicizes personal food decisions
- E. It oversimplifies the complexity of climate change
- F. It could lead to nutrient deficiencies
- G. It's too focused on individual behavior instead of systemic change
- H. I don't have any of these concerns

2. 2. 2. Expert Review and Pilot Testing:

Iterative review by experts in survey design to assess validity and finalize item selection. Survey drafts were discussed iteratively by a team of academic experts in polarization and survey methodology. A final survey draft was reviewed to ensure face validity. Items with low face validity were rephrased or removed.

Subsequently, a preliminary version of the survey was tested by MIC's Americans in Conversation (AIC) – a mixed-methods online research platform. This involved selecting a subset of the survey questions to be given to a set of panelists (n=129) who responded and provided open-ended comments on question interpretation and clarity. The AIC was also used to assess timing of taking the survey to assess cognitive load. This provided actionable insights into details of the survey questions that could be further improved. The research team incorporated recommendations, editing the survey in an iterative manner.

2. 3. Data Cleaning:

The dataset was examined for missingness; no missing data were identified. Variable names were standardized for clarity. Data inconsistencies in the *Race Group* variable were corrected manually when open-ended “Other” responses corresponded to existing race categories. Continuous variables were assessed for normality to inform subsequent analytic decisions.

Responses to four-point Likert-type items (strongly disagree to strongly agree; strongly oppose to strongly support) were collapsed into binary categories (agree vs. disagree; support vs. oppose). This decision was based on the need to facilitate interpretation and comparability across models, and dichotomizing the scale allowed us to focus on clear directional differences rather than small variations in continuous scores. Acknowledged limitations of this approach include potential loss of nuance and reduced ability to detect subtle gradations in attitudes.

2. 3. 1. Post-Stratification Sample Weighting:

The data were weighted to be representative of the US population according to gender/age interlocked, ethnicity, education level, region, and political party. The margin of error was $\pm 1.95\%$ for the US average and higher for subgroups. The weighting targets were based on the 2020 US Census, the 2023 American Community Survey, and Pew Research Center’s annual National Public Opinion Reference Survey (NPORS).^{49–51} Variables used for weighting included: “Gender by Age Group”, “Party ID Combined”, “Education”, “Race Group”, “Census Region”. Demographic benchmarks were drawn selectively from each source based on data quality, availability, and recency. The most appropriate and up-to-date benchmark were used for each demographic variable to construct weighting targets.

The U.S. Census population does not include a non-binary gender category. Due to this limitation, five non-binary respondents received a weight of zero and were excluded from post-stratification analyses (analytic n=2,518). This exclusion reflects a structural limitation of current federal demographic standards.

2. 4. Descriptive Analyses:

R version 4.4.1 was used for data management and analysis.⁵² Descriptive analyses were performed with the post-stratification weighted sample. Research question 1 was answered by descriptively analyzing the survey responses for all participants, without stratification. In research question 2, variables were stratified by political affiliation. Figures and tables were made using Google Sheets.

2. 5. Statistical Analyses:

In research question 2, to determine which demographic variables would be retained as covariates, weighted bivariate logistic regression models were conducted to assess unadjusted associations between each sociodemographic characteristic (gender, race, ethnicity, education level, generation, and income level) and each binary outcome variable. Sociodemographic predictors associated with a consistent pattern of significance in bivariate analyses were retained as covariates in the subsequent logistic regression analyses. Race and race-group variables were excluded from covariate selection because several categories had insufficient sample sizes to support stable estimation.

In research question 3, a Welch's t-test was used in the perception gap analysis to determine if the first-order beliefs of one party (Democrats/Republicans) were statistically different from the second-order beliefs of the opposing party (Republicans/Democrats).

Binary logistic regression models were then used to estimate adjusted associations for all dichotomous outcome variables. These outcomes included: (1) agreement with each values-based statement (agree v. disagree); (2) perceived climate impact of meat consumption (substantial impact vs. no substantial impact), (3) support for a government recommendation to reduce meat consumption (support vs. oppose), and (4) endorsement of each concern about efforts to reduce meat consumption (selected as a top-two concern vs. not selected).

The demographic variables that were retained as covariates in all of the adjusted regressions were age group, gender, education, and urbanicity. Democrats were specified as the reference category for political party affiliation to align with the primary partisan comparison of interest (Democrat vs. Republican) and to provide a meaningful interpretive baseline. The 18–24 age group served as the reference category to facilitate interpretation of odds ratios across progressively older age groups. Female respondents were used as the reference group for gender, reflecting their larger representation in the sample. Respondents without a high school degree were the reference category for education, enabling comparisons across increasing levels of educational attainment. Urban residence was specified as the reference category for urbanicity to allow for a clear comparison between urban and rural residents.

For all binary logistic regression models, odds ratios represent the adjusted relative odds of endorsing the outcome category (e.g., agreeing with a values-based statement, indicating meat as having a substantial climate impact, supporting a government-led solution, or selecting a concern as a top-two issue) compared with the reference category for each predictor.

Each of the five values-based statements was analyzed separately as an individual binary outcome, as participants responded independently to each separate statement. Similarly, each of the eight concern response options related to reducing meat consumption was analyzed as a

separate binary outcome indicating whether the item was selected as a respondent's top two concerns.

Multinomial logistic regression models were used for nominal outcome variables with more than two unordered response options, including both concern-branching questions. For these models, the modal response category was specified as the reference category. Odds ratios therefore represent the adjusted relative odds of selecting each non-reference response option(s) compared with the modal category.

2. 6. Ethics Statement:

This study was reviewed by the University of Washington Institutional Review Board and received an exemption determination under Category 2 (45 CFR 46.104(d)(2); IRB #STUDY00023988).

3. Results:

3. 1. Sample characteristics: Respondent characteristics are summarized in Table 1. The analytic sample included 2,518 adults. Respondents ranged in age from 19 to 95 years (mean = 47). In the weighted sample, 28% identified as Democrats, 31% as Republicans, and 32% as Independents.

Table 1: Demographic Characteristics of the Sample Respondents

	Unweighted Sample (n=2,523)	Weighted Sample (n=2,518)	US Population ^a
Gender			
Female	1,400 (55%)	1,284 (51%)	51.0%
Male	1,118 (44%)	1,234 (49%)	49.0%
Nonbinary/Other	5 (0.2%)	0 (0%)	No Data
Age Group			
18 – 24	70 (2.8%)	294 (12%)	9.2%
25 – 34	287 (11%)	438 (17%)	13.6%
35 – 44	420 (17%)	427 (17%)	13.5%
45 – 54	401 (16%)	389 (15%)	12.0 %
55 – 64	425 (17%)	402 (16%)	12.3%
65 – 74	515 (20%)	333 (13%)	10.5%
75+	405 (16%)	236 (9.4%)	7.6%
Race Group			
Asian	95 (3.8%)	149 (5.9%)	6.0%
Black	338 (13%)	303 (12%)	12.4%
Hispanic	157 (6.2%)	472 (19%)	20%
Mixed Race	55 (2.2%)	103 (4.1%)	13.2%
Native American	13 (0.5%)	17 (0.7%)	1.1%

Native Hawaiian	5 (0.2%)	5 (0.2%)	0.2%
Other	14 (0.6%)	13 (0.5%)	8.4%
White	1,846 (73%)	1,456 (58%)	61.6%
Education ^b			
No high school degree	80 (3.2%)	242 (9.6%)	10.1%
High school degree	730 (29%)	735 (29%)	25.7%
Some college, but no degree	564 (22%)	415 (17%)	18.5%
2-year college degree	113 (4.5%)	249 (9.9%)	8.8%
4-year college degree	670 (27%)	556 (22%)	22.1%
Postgraduate degree	366 (15%)	320 (13%)	14.7%
Urbanicity			
Suburban	1,279 (51%)	1,250 (50%)	No Data
Urban	708 (28%)	762 (30%)	80%
Rural	536 (21%)	507 (30%)	20%
Political Party Affiliation			
Democrat	906 (36%)	705 (28%)	28%
Republican	881 (35%)	781 (31%)	31%
Independent	591 (23%)	803 (32%)	41% ^c
Other	65 (2.6%)	119 (4.7%)	No Data
Not sure	80 (3.2%)	110 (4.4%)	No Data

^a Data for gender, age group, race group, urbanicity and education are from the US Census; data for political party affiliation is from the Pew Research Center Party Affiliation Fact Sheet (NPORS)

^b Data for education level from the US Census was for 25 years and older, while our study sample was 18 and older

^c Pew Research Center Party Affiliation Fact Sheet (NPORS) reports that 41% of Americans say they are independents or “something else”, and 8% of these say that they refuse to lean Democratic or Republican.

3. 2. Research Question 1: What are American’s values-based views, concerns, and preferred solutions related to meat and climate issues?

3. 2. 1. Values-Based Questions:

The greatest proportion of respondents agreed with the statement “I shouldn’t have to give up meat for the benefit of other people” (79%), followed by agreement with “If eating meat is criticized more than other personal choices, that’s a double-standard” (75%), and “We shouldn’t blindly follow experts who say less meat helps the planet” (69%). A majority of respondents agreed that “Avoiding meat is unnatural” (58%). Agreement was lowest (49%) for the statement “Choosing not to eat meat feels like turning your back on communities that depend on ranching” (Figure 2). The framing of the top two statements tends to center on personal autonomy; as such, these findings illustrate a widespread perception of meat eating as an individual right.

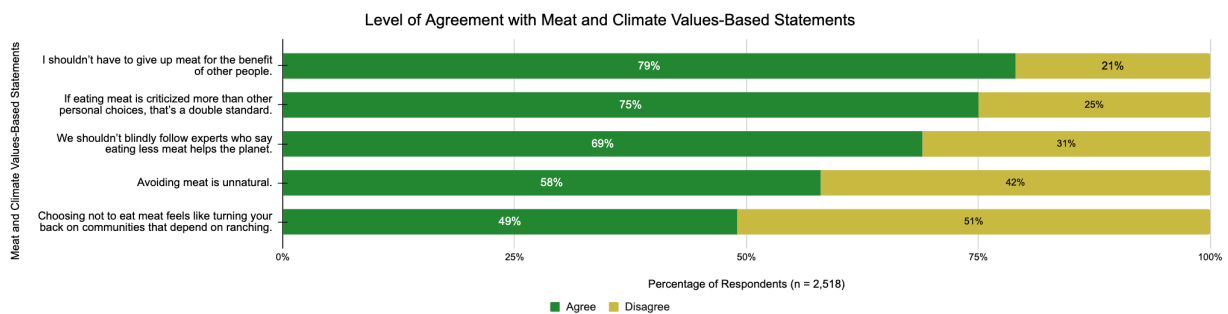


Figure 2: Percent of Respondents who Agree/Disagree with Values Statements

3. 2. 2. Concern Questions:

A majority of respondents (65%) indicated that they do not view meat as having a substantial impact on climate change (Figure 3). Among respondents who believed meat does not have a substantial impact on climate change, the most common view was that “Meat production can be sustainable with the right practices” (36%) (Figure 4). Among respondents who believed that meat has a substantial impact on climate change (35%), the most frequently selected concern was “The way we produce meat in the US” (45%) (Figure 5). These patterns suggest that, even across groups with opposing beliefs about meat’s climate impact, respondents converge on a shared emphasis on production practices as the key concern.

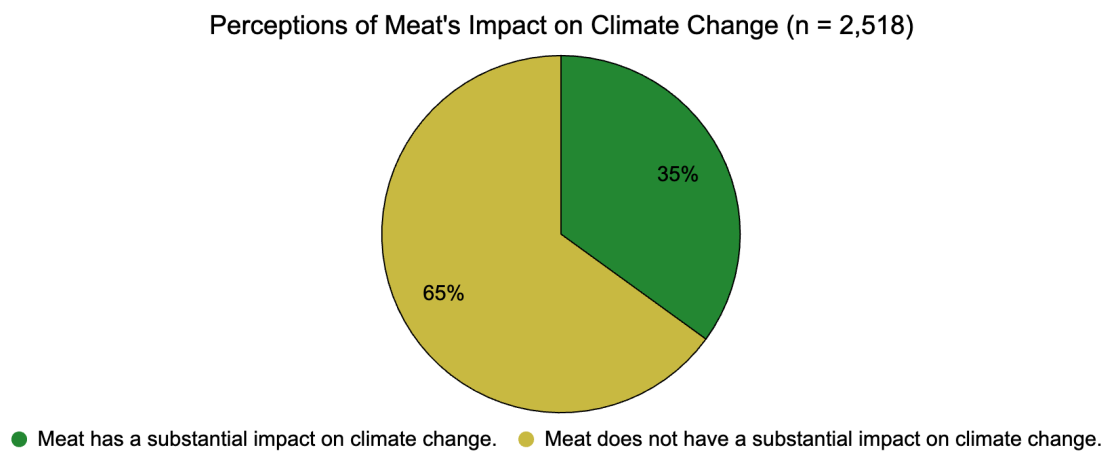


Figure 3: Percent of Respondents who Say Meat Has/Does not Have a Climate Impact

Views Among Participants Who View Meat as not Having a Substantial Climate Impact
(n = 1,640)

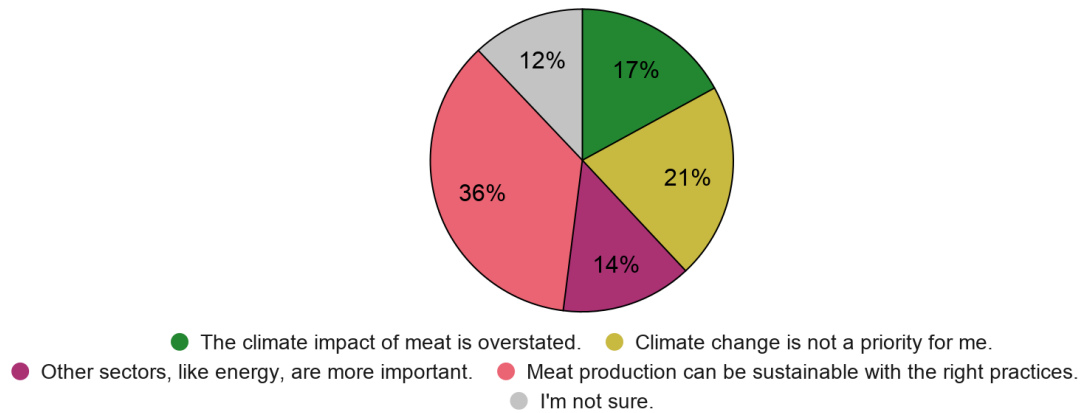


Figure 4: Primary Explanations for Dismissing Meat's Climate Impact

Climate-Impact Concerns Among Respondents Who View Meat as a Significant Contributor
(n = 878)

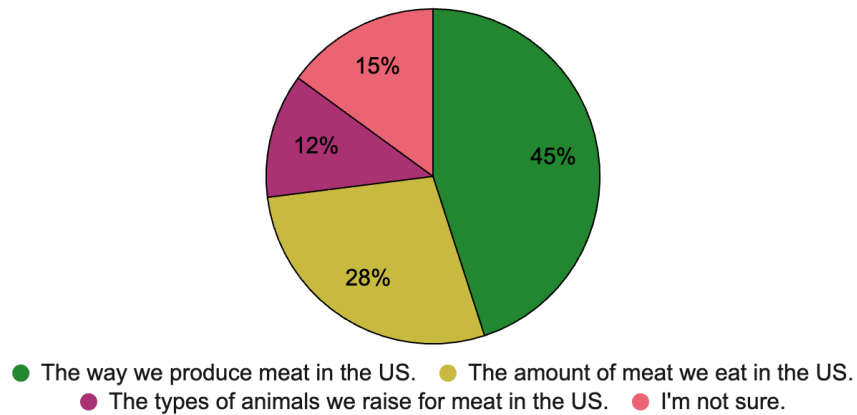


Figure 5: Primary Meat-Climate Concerns Among Climate-Aware Respondents

3. 2. 3. Solution Questions:

Most respondents (63%) reported that they would oppose a government recommendation encouraging Americans to eat less meat to address climate change (Figure 6). When asked to choose their top-two concerns about such a recommendation from seven options, no single concern was chosen by the majority of respondents. The most frequently selected concern (29%) was that a government recommendation could undermine people's ability to make their own food choices (Figure 7).

Public Support and Opposition to a Government Eat-Less-Meat Recommendation
(n = 2,518)

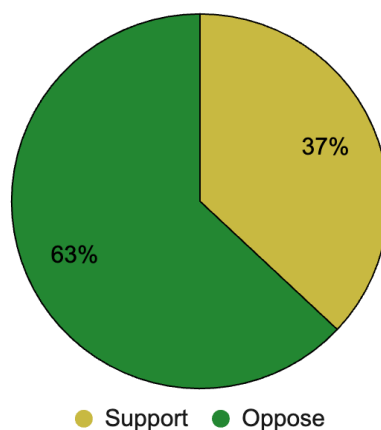


Figure 6: Percent of Respondents who Support/Oppose the Government Recommendation

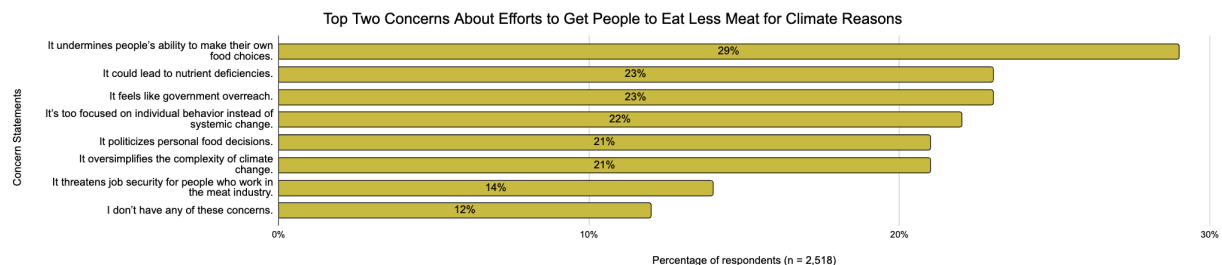


Figure 7: Percent of Respondents Concerned about Each Statement

3. 3. Research Question 2a: How are American's values-based views, concerns, and preferred solutions about meat and climate issues distributed by political affiliation? For which values, concerns, and solutions is there greater common ground or polarization based on political affiliation?

3. 3. 1. Values-Based Questions:

The three values-based statements with highest level of agreement for overall respondents also elicited high levels of agreement across political affiliations. This finding indicates that the resistance to external pressures towards reducing meat consumption is common across party lines (Figure 8).

Partisan differences emerged for the other two values-based statements. Republicans (72%) and respondents who were unsure of their political affiliation (66%) displayed higher levels of agreement with the statement "Avoiding meat is unnatural", whereas agreement was lower among Democrats (48%), Independents (54%), and those identifying as "Other" (50%) (Figure 8).

A similar pattern was observed for the statement "Choosing not to eat meat feels like turning your back on communities that depend on ranching". Agreement was highest among Republicans (62%) and respondents who were unsure of their political affiliation (64%). In contrast, fewer Democrats (46%) endorsed this view, with even lower agreement among Independents (39%) and respondents identifying as "Other" political affiliation (36%) (Figure 8). These findings indicate some cross-partisan overlap and division on values-based views.

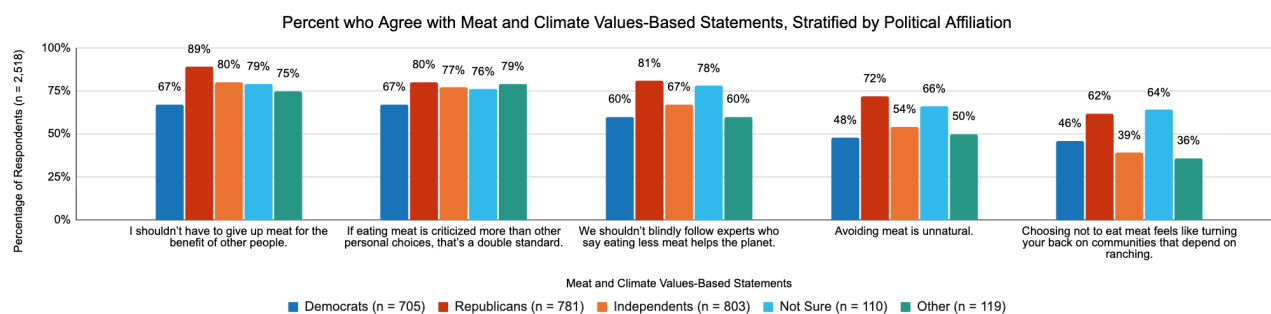


Figure 8: Percent of Respondents who Agree/Disagree with Values Statements, Stratified by Political Affiliation

3. 3. 2. Concern Questions:

Patterns observed in the concern questions were largely consistent after stratifying by political affiliation. A strong majority of Republicans (81%), Independents (63%), respondents who were unsure of their political affiliation (74%), and those identifying as “Other” (73%) reported that they do not believe meat has a substantial impact on climate change. Democrats were the only group for whom this was not the majority view, with 48% holding this perspective (Figure 9).

Among respondents who believed that meat does have a substantial climate impact, the most common concern across political groups was “The way we produce meat in the United States” (Democrats 43%, Republicans 40%, Independents 48%, “Other” 74%). Respondents who were unsure of their political affiliation were the only exception; their most frequent response was “I’m not sure” (57%) (Figure 10). Among respondents who believed that meat does not have a substantial climate impact, the most common explanation across political groups was that “Meat production can be sustainable with the right practices” (Democrats 43%, Independents 38%, “Not sure” 56%, “Other” 55%). Republicans were the only group that diverged from this pattern, with their most common response being “Climate change is not a concern for me” (28%) (Figure 11).

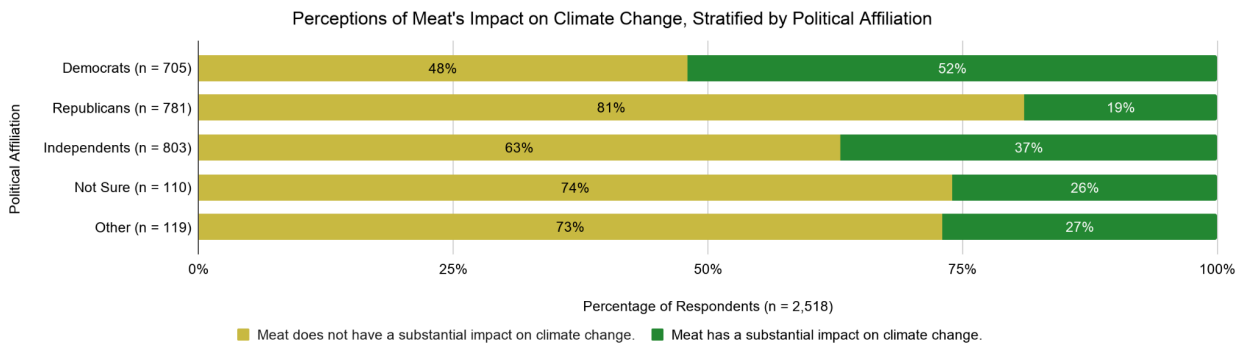


Figure 9: Percent of Respondents Who Say Meat Has/Does Not Have a Climate Impact

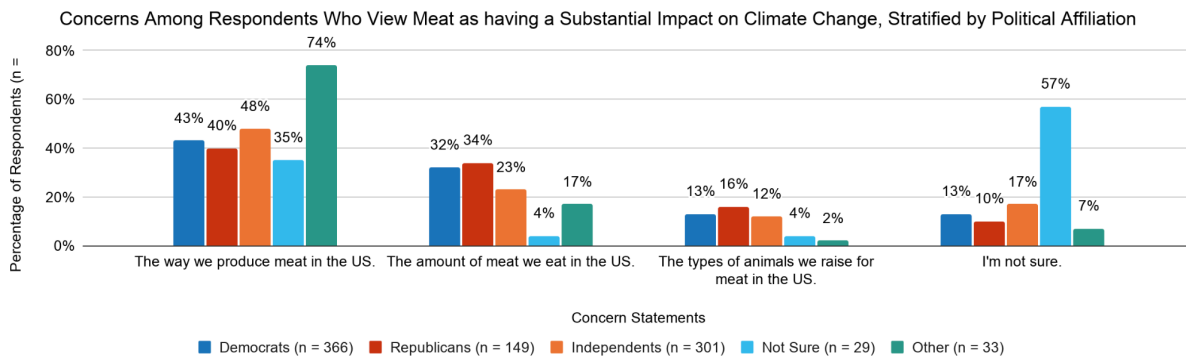


Figure 10: Meat-Climate Concerns Among Climate-Aware Respondents, Stratified by Party

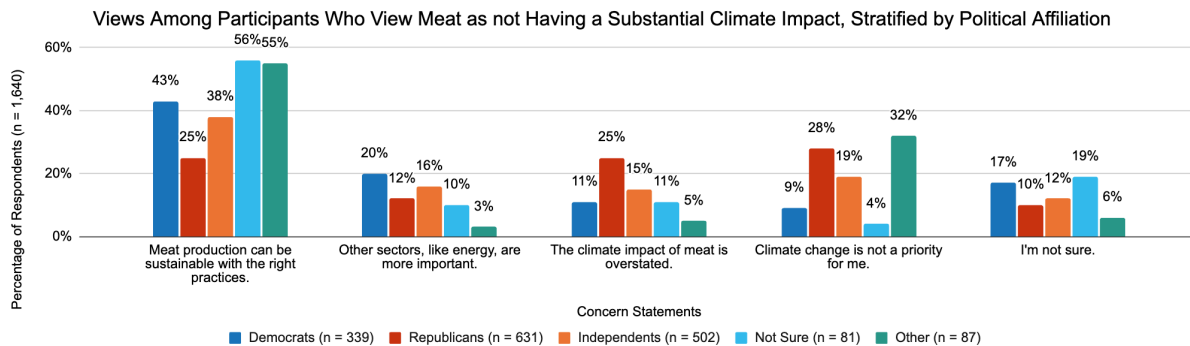


Figure 11: Primary Explanations for Dismissing Meat's Climate Impact, Stratified by Party

3. 3. 3. Solution Questions:

Patterns in responses to the government solution question were largely consistent across political affiliations, with most groups expressing opposition to a government recommendation to reduce meat consumption to address climate change. A majority of Republicans (72%), Independents (65%), “Not sure” (78%) and “Other” (61%) reported that they would oppose such government recommendations. Democrats were the only group for whom this view was held by a slight minority, although nearly half (48%) also opposed such a recommendation (Figure 12).

When asked about concerns about this potential solution, four responses stood out across political affiliations as the most commonly selected, though the dominant concern varied by political party affiliation. The concern that efforts to encourage people to eat less meat “undermines people’s ability to make their own food choices” was either the leading or second-most chosen concern across political affiliations. This was the most frequently chosen concern among Republicans (33%) and those who were unsure of their political affiliation (50%), it tied for second for Democrats (23%) and Independents (27%), and ranked second among respondents identifying politically as “Other” (34%). This aligns with the findings for the values-based views, indicating a cross-partisan concern for maintaining personal autonomy over meat eating.

The concern “It’s too focused on individual behavior instead of systemic change” was most frequently chosen among Democrats (26%), and tied for Independents’ second-highest selection (27%). Independents were most likely to select “It oversimplifies the complexity of climate change” (28%), and this concern tied for Democrats’ second-highest selection (23%). Respondents identifying as “Other” most commonly selected “It feels like government overreach” (47%), while this concern ranked second among Republicans (28%) and among those

who were unsure of their political affiliation (32%) (Table 2). These findings highlight some cross-partisan agreement, as well as some division over the recognition of climate change as a complex issue and concerns about government overreach.

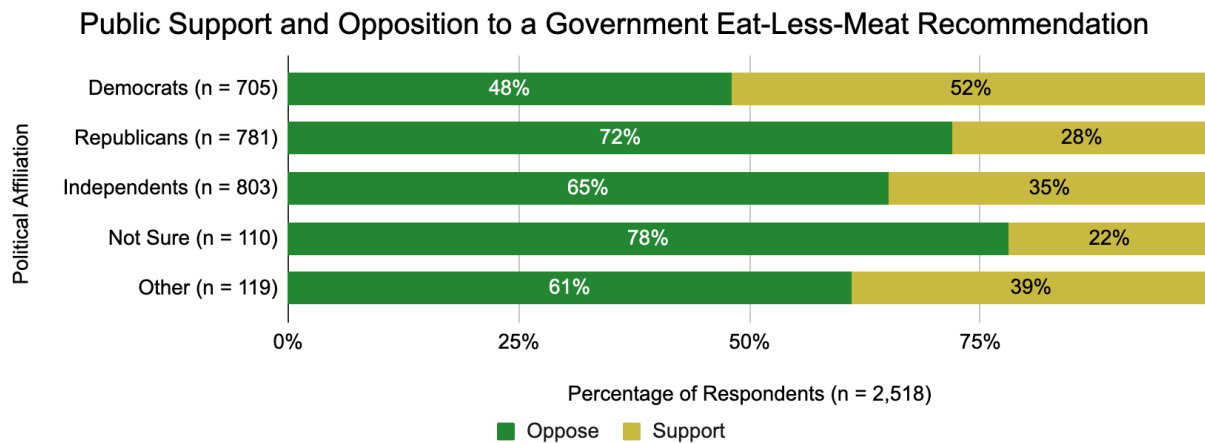


Figure 12: Percent of Respondents who Support/Oppose the Government Recommendation, Stratified by Party

Table 2: Percent of Respondents Concerned about Each Statement, Stratified by Party

Meat Solution Statements	Democrats (n = 705)	Republicans (n = 781)	Independents (n = 803)	Not Sure (n = 110)	Other (n = 119)
It's too focused on individual behavior instead of systemic change.	26%	14%	27%	13%	26%
It undermines people's ability to make their own food choices.	23%	33%	27%	50%	34%
It oversimplifies the complexity of climate change.	23%	14%	28%	9%	18%
It could lead to nutrient deficiencies.	20%	24%	23%	27%	26%
It feels like government overreach.	19%	28%	18%	32%	47%
It politicizes personal food decisions.	17%	25%	23%	18%	14%
I don't have any of these concerns.	16%	12%	11%	6%	4%
It threatens job security for people who work in the meat industry.	15%	15%	11%	15%	15%

3. 4. Research Question 2b: How do Americans with different political affiliations, including those unsure of their affiliation, differ in their values-based views, concerns, and preferred solutions, when we adjust for age, gender, education, and urbanicity? To what extent do these sociodemographic factors moderate the relationship between political identity and polarization or common ground on meat-related climate issues?

For tables presented in this section, “crude” is the unadjusted odds ratios (ORs), “adjusted 1” is adjusted for age, “adjusted 2” is adjusted for age and gender, “adjusted 3” is adjusted for age, gender, and education, while “adjusted 4” is adjusted for age, gender, education and urbanicity.

3. 4. 1. Values-Based Questions:

3. 4. 1. 1. Care/Harm: “I shouldn’t have to give up meat for the benefit of other people”: As compared to Democrats, Republicans (OR = 3.88, $p < 0.001$) and Independents (OR = 2.03, $p < 0.001$) were more likely to agree. As compared to respondents in the age group 18–24, respondents in the age group 65–74 were more likely to agree (OR = 2.46, $p = 0.023$). As compared to urban residents, suburban residents were more likely to agree (OR = 1.76, $p = 0.002$). No statistically significant differences were observed by gender or education (Table 3).

Table 3: Logistic Regression: Agreement with for value-based statement “I shouldn’t have to give up meat for the benefit of other people”

Logistic Regression for Value-based Statement: “I shouldn’t have to give up meat for the benefit of other people” – Odds of Agreeing															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Republican	3.84	2.67, 5.54	<0.001	3.72	2.59, 5.36	<0.001	3.71	2.57, 5.34	<0.001	3.75	2.59, 5.41	<0.001	3.88	2.66, 5.68	<0.001
Independent	1.99	1.32, 3.00	0.001	2.06	1.36, 3.13	<0.001	2.04	1.33, 3.13	0.001	2.09	1.38, 3.18	<0.001	2.03	1.36, 3.02	<0.001
Other	1.50	0.55, 4.13	0.4	1.74	0.60, 5.05	0.3	1.81	0.60, 5.42	0.3	1.78	0.56, 5.61	0.3	1.70	0.59, 4.85	0.3
Not sure	1.81	0.68, 4.80	0.2	2.05	0.76, 5.56	0.2	2.22	0.81, 6.08	0.12	2.23	0.79, 6.30	0.13	2.29	0.84, 6.26	0.11
Agegroup															
18–24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
25–34	—	—	—	0.83	0.37, 1.87	0.7	0.84	0.36, 1.94	0.7	0.81	0.36, 1.85	0.6	0.89	0.42, 1.91	0.8
35–44	—	—	—	1.15	0.50, 2.62	0.7	1.16	0.50, 2.70	0.7	1.18	0.50, 2.79	0.7	1.34	0.61, 2.98	0.5
45–54	—	—	—	1.30	0.58, 2.92	0.5	1.32	0.57, 3.05	0.5	1.39	0.61, 3.19	0.4	1.54	0.71, 3.34	0.3
55–64	—	—	—	1.17	0.52, 2.65	0.7	1.19	0.51, 2.77	0.7	1.24	0.54, 2.85	0.6	1.35	0.62, 2.95	0.4
65–74	—	—	—	2.26	1.01, 5.03	0.047	2.31	1.01, 5.30	0.047	2.37	1.04, 5.39	0.040	2.46	1.13, 5.34	0.023
75+	—	—	—	1.75	0.78, 3.91	0.2	1.82	0.79, 4.20	0.2	1.97	0.85, 4.58	0.11	2.09	0.95, 4.60	0.067
Gender															
Female	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Male	—	—	—	—	—	—	1.28	0.90, 1.82	0.2	1.28	0.91, 1.81	0.2	1.27	0.91, 1.77	0.2
Education															
No high school degree	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High school degree	—	—	—	—	—	—	—	—	—	1.26	0.51, 3.12	0.6	1.24	0.54, 2.87	0.6
Some college, but no degree	—	—	—	—	—	—	—	—	—	1.29	0.52, 3.17	0.6	1.21	0.52, 2.79	0.7
2-year college degree	—	—	—	—	—	—	—	—	—	1.67	0.57, 4.89	0.4	1.60	0.59, 4.36	0.4
4-year college degree	—	—	—	—	—	—	—	—	—	1.06	0.43, 2.60	0.9	0.98	0.43, 2.23	>0.9
Postgraduate degree	—	—	—	—	—	—	—	—	—	0.79	0.32, 1.96	0.6	0.72	0.31, 1.68	0.4
Urbanicity															
Urban	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rural	—	—	—	—	—	—	—	—	—	—	—	—	0.91	0.57, 1.44	0.7
Suburban	—	—	—	—	—	—	—	—	—	—	—	—	1.76	1.22, 2.53	0.002

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

3. 4. 1. 2. Fairness/Cheating: “If eating meat is criticized more than other personal choices, that’s a double standard”: Republicans (OR = 1.95, $p < 0.001$) and Independents (OR = 1.76, $p = 0.004$) were significantly more likely than Democrats to agree with this statement. Male respondents had lower odds than female respondents to agree with the statement (OR = 0.71, $p = 0.03$). No significant differences were detected for age, education or urbanicity (Table 4).

Table 4: Logistic Regression: Agreement with value-based statement “If eating meat is criticized more than other personal choices, that’s a double standard”

Logistic Regression for Value-based Statement: “If eating meat is criticized more than other personal choices, that’s a double standard” – Odds of Agreeing															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—		—	—		—	—		—	—		—	—	
Republican	1.96	1.31, 2.94	0.001	1.92	1.30, 2.84	0.001	1.95	1.33, 2.86	<0.001	1.96	1.37, 2.82	<0.001	1.95	1.36, 2.81	<0.001
Independent	1.66	1.13, 2.44	0.010	1.69	1.13, 2.53	0.010	1.73	1.16, 2.57	0.007	1.83	1.22, 2.72	0.003	1.76	1.20, 2.58	0.004
Other	1.83	0.73, 4.64	0.2	2.19	0.77, 6.18	0.14	2.07	0.76, 5.64	0.2	2.21	0.75, 6.53	0.2	2.09	0.73, 5.94	0.2
Not sure	1.58	0.70, 3.59	0.3	1.77	0.73, 4.31	0.2	1.61	0.68, 3.83	0.3	1.78	0.75, 4.22	0.2	1.77	0.76, 4.12	0.2
Agegroup															
18–24				—	—		—	—		—	—		—	—	
25–34				1.60	0.66, 3.88	0.3	1.57	0.67, 3.70	0.3	1.35	0.59, 3.09	0.5	1.39	0.63, 3.09	0.4
35–44				1.83	0.76, 4.43	0.2	1.81	0.77, 4.25	0.2	1.56	0.66, 3.70	0.3	1.65	0.73, 3.75	0.2
45–54				1.09	0.45, 2.61	0.9	1.07	0.46, 2.47	0.9	0.93	0.40, 2.13	0.9	0.95	0.43, 2.08	0.9
55–64				2.03	0.82, 5.02	0.13	1.98	0.83, 4.73	0.12	1.69	0.71, 4.01	0.2	1.72	0.75, 3.91	0.2
65–74				2.35	0.96, 5.71	0.060	2.28	0.97, 5.34	0.058	1.88	0.80, 4.41	0.15	1.85	0.83, 4.13	0.13
75+				1.44	0.59, 3.50	0.4	1.37	0.59, 3.20	0.5	1.14	0.49, 2.68	0.8	1.14	0.51, 2.55	0.8
Gender															
Female							—	—		—	—		—	—	
Male							0.73	0.53, 1.01	0.055	0.71	0.51, 0.97	0.032	0.71	0.52, 0.97	0.030
Education															
No high school degree										—	—		—	—	
High school degree										1.74	0.74, 4.11	0.2	1.72	0.75, 3.91	0.2
Some college, but no degree										1.66	0.71, 3.88	0.2	1.61	0.71, 3.65	0.3
2-year college degree										2.69	0.87, 8.30	0.085	2.66	0.90, 7.91	0.078
4-year college degree										1.86	0.79, 4.35	0.2	1.78	0.78, 4.06	0.2
Postgraduate degree										1.55	0.64, 3.71	0.3	1.48	0.63, 3.47	0.4
Urbanicity															
Urban													—	—	
Rural													1.08	0.71, 1.63	0.7
Suburban													1.42	0.98, 2.04	0.062

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

3. 4. 1. 3. Loyalty/Betrayal: “Choosing not to eat meat feels like turning your back on communities that depend on ranching”: Republicans were twice as likely as Democrats to agree (OR = 2.04, $p < 0.0001$). No statistically significant differences were observed for age, gender, education, or urbanicity (Table 5).

Table 5: Logistic Regression: Agreement with value-based statement “Choosing not to eat meat feels like turning your back on communities that depend on ranching”

Logistic Regression for Value-based Statement: “Choosing not to eat meat feels like turning your back on communities that depend on ranching” – Odds of Agreeing															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—		—	—		—	—		—	—		—	—	
Republican	1.99	1.49, 2.65	<0.001	1.99	1.49, 2.67	<0.001	1.99	1.48, 2.67	<0.001	1.98	1.48, 2.65	<0.001	2.04	1.51, 2.75	<0.001
Independent	0.76	0.53, 1.08	0.13	0.77	0.54, 1.10	0.15	0.77	0.54, 1.10	0.15	0.78	0.55, 1.12	0.2	0.81	0.57, 1.14	0.2
Other	0.67	0.20, 2.17	0.5	0.67	0.21, 2.15	0.5	0.68	0.21, 2.15	0.5	0.71	0.22, 2.32	0.6	0.76	0.23, 2.49	0.7
Not sure	2.08	0.90, 4.81	0.085	2.10	0.89, 4.92	0.089	2.13	0.90, 5.00	0.084	2.18	0.92, 5.20	0.078	2.28	0.96, 5.44	0.063
Agegroup															
18–24				—	—		—	—		—	—		—	—	
25–34				1.03	0.43, 2.47	>0.9	1.03	0.43, 2.47	>0.9	1.00	0.46, 2.20	>0.9	1.01	0.46, 2.22	>0.9
35–44				1.11	0.47, 2.61	0.8	1.11	0.47, 2.61	0.8	1.07	0.49, 2.35	0.9	1.08	0.50, 2.35	0.8
45–54				0.83	0.35, 1.97	0.7	0.83	0.35, 1.97	0.7	0.81	0.37, 1.79	0.6	0.84	0.38, 1.84	0.7
55–64				0.90	0.38, 2.12	0.8	0.90	0.38, 2.13	0.8	0.86	0.39, 1.88	0.7	0.89	0.41, 1.95	0.8
65–74				1.22	0.52, 2.85	0.7	1.22	0.52, 2.86	0.6	1.14	0.53, 2.44	0.7	1.20	0.56, 2.57	0.6
75+				0.98	0.42, 2.30	>0.9	0.98	0.42, 2.32	>0.9	0.93	0.43, 2.00	0.8	0.96	0.44, 2.07	>0.9
Gender															
Female							—	—		—	—		—	—	
Male							1.04	0.79, 1.39	0.8	1.05	0.80, 1.38	0.7	1.02	0.78, 1.35	0.9
Education															
No high school degree										—	—		—	—	
High school degree										1.18	0.49, 2.84	0.7	1.19	0.49, 2.88	0.7
Some college, but no degree										0.97	0.41, 2.28	>0.9	0.98	0.41, 2.31	>0.9
2-year college degree										1.57	0.61, 4.07	0.4	1.59	0.62, 4.13	0.3
4-year college degree										1.15	0.50, 2.65	0.7	1.17	0.51, 2.70	0.7
Postgraduate degree										1.26	0.54, 2.93	0.6	1.27	0.55, 2.97	0.6
Urbanicity															
Urban													—	—	
Rural													0.78	0.54, 1.12	0.2
Suburban													0.83	0.59, 1.16	0.3

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

3. 4. 1. 4. Authority/Subversion: “We shouldn’t blindly follow experts who say eating less meat helps the planet”: As compared to Democrats, Republicans (OR = 2.76, $p < 0.001$) and participants who are not sure of their political affiliation (OR = 2.45, $p = 0.034$) were significantly more likely to agree. Respondents aged 45–54 were less likely than those aged 18–24 to agree (OR = 0.35, $p = 0.007$). No significant differences were observed by gender, education, or urbanicity (Table 6).

Table 6: Logistic Regression: Agreement with value-based statement “We shouldn’t blindly follow experts who say eating less meat helps the planet”

Logistic Regression for Value-based Statement: “We shouldn’t blindly follow experts who say eating less meat helps the planet” – Odds of Agreeing															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—		—	—		—	—		—	—		—	—	
Republican	2.71	2.02, 3.63	<0.001	2.78	2.08, 3.71	<0.001	2.77	2.07, 3.70	<0.001	2.78	2.08, 3.71	<0.001	2.76	2.05, 3.72	<0.001
Independent	1.30	0.91, 1.86	0.15	1.33	0.95, 1.87	0.10	1.32	0.94, 1.87	0.11	1.33	0.95, 1.86	0.10	1.30	0.93, 1.82	0.12
Other	0.99	0.36, 2.68	>0.9	0.88	0.36, 2.16	0.8	0.89	0.36, 2.21	0.8	0.87	0.35, 2.18	0.8	0.84	0.34, 2.05	0.7
Not sure	2.26	1.02, 5.00	0.045	2.28	1.04, 4.98	0.039	2.38	1.07, 5.30	0.034	2.46	1.08, 5.59	0.031	2.45	1.07, 5.62	0.034
Agegroup															
18–24				—	—		—	—		—	—		—	—	
25–34				0.51	0.23, 1.13	0.10	0.51	0.23, 1.14	0.10	0.50	0.22, 1.14	0.10	0.52	0.24, 1.15	0.11
35–44				0.53	0.24, 1.15	0.11	0.53	0.24, 1.17	0.11	0.52	0.23, 1.16	0.11	0.54	0.25, 1.19	0.13
45–54				0.34	0.16, 0.75	0.007	0.34	0.16, 0.76	0.008	0.34	0.15, 0.74	0.007	0.35	0.16, 0.74	0.007
55–64				0.48	0.22, 1.03	0.060	0.48	0.22, 1.05	0.066	0.47	0.21, 1.04	0.063	0.48	0.22, 1.03	0.060
65–74				0.64	0.30, 1.37	0.2	0.64	0.30, 1.40	0.3	0.63	0.29, 1.37	0.2	0.63	0.29, 1.33	0.2
75+				0.77	0.35, 1.67	0.5	0.78	0.35, 1.72	0.5	0.77	0.35, 1.72	0.5	0.78	0.36, 1.69	0.5
Gender															
Female							—	—		—	—		—	—	
Male							1.15	0.86, 1.53	0.3	1.15	0.87, 1.51	0.3	1.15	0.88, 1.51	0.3
Education															
No high school degree										—	—		—	—	
High school degree										0.90	0.43, 1.91	0.8	0.89	0.43, 1.85	0.8
Some college, but no degree										1.06	0.50, 2.24	0.9	1.03	0.50, 2.14	>0.9
2-year college degree										1.08	0.45, 2.63	0.9	1.06	0.45, 2.52	0.9
4-year college degree										1.00	0.48, 2.09	>0.9	0.96	0.47, 1.97	>0.9
Postgraduate degree										0.89	0.42, 1.91	0.8	0.86	0.41, 1.81	0.7
Urbanicity															
Urban													—	—	
Rural													1.08	0.72, 1.62	0.7
Suburban													1.34	0.97, 1.84	0.072
Abbreviations: CI = Confidence Interval, OR = Odds Ratio															

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

3. 4. 1. 5. Purity/Disgust: “Avoiding meat is unnatural”: As compared to Democrats, Republicans (OR = 2.83, $p < 0.001$) and those unsure of their political affiliation (OR = 2.71, $p = 0.035$) were more likely to agree. Males were more likely than females to agree (OR = 1.44, $p = 0.012$). No significant differences were observed by age, education, or urbanicity (Table 7).

Table 7: Logistic Regression: Agreement with value-based statement “Avoiding meat is unnatural”

Logistic Regression for Value-based Statement: “Avoiding meat is unnatural” – Odds of Agreeing															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—		—	—		—	—		—	—		—	—	
Republican	2.81	2.04, 3.88	<0.001	2.81	2.04, 3.86	<0.001	2.79	2.02, 3.85	<0.001	2.81	2.04, 3.89	<0.001	2.83	2.04, 3.93	<0.001
Independent	1.25	0.86, 1.82	0.2	1.27	0.88, 1.81	0.2	1.24	0.87, 1.76	0.2	1.28	0.90, 1.82	0.2	1.26	0.89, 1.79	0.2
Other	1.07	0.37, 3.11	>0.9	1.24	0.40, 3.81	0.7	1.31	0.42, 4.14	0.6	1.31	0.38, 4.49	0.7	1.28	0.38, 4.29	0.7
Not sure	2.10	0.89, 4.94	0.090	2.29	0.87, 6.00	0.092	2.59	0.97, 6.89	0.056	2.70	1.04, 6.98	0.040	2.71	1.07, 6.87	0.035
Agegroup															
18–24				—	—		—	—		—	—		—	—	
25–34				2.22	0.88, 5.59	0.090	2.26	0.91, 5.64	0.080	2.08	0.89, 4.86	0.090	2.16	0.93, 4.98	0.072
35–44				2.10	0.85, 5.18	0.11	2.13	0.87, 5.22	0.10	2.02	0.86, 4.72	0.11	2.12	0.91, 4.93	0.080
45–54				1.43	0.58, 3.55	0.4	1.46	0.59, 3.60	0.4	1.39	0.59, 3.26	0.5	1.43	0.62, 3.33	0.4
55–64				1.75	0.71, 4.30	0.2	1.80	0.74, 4.40	0.2	1.70	0.73, 3.94	0.2	1.74	0.76, 4.00	0.2
65–74				2.11	0.87, 5.15	0.10	2.20	0.91, 5.33	0.082	2.03	0.89, 4.63	0.094	2.03	0.90, 4.60	0.090
75+				1.72	0.70, 4.21	0.2	1.81	0.74, 4.43	0.2	1.72	0.74, 3.96	0.2	1.74	0.76, 3.99	0.2
Gender															
Female							—	—		—	—		—	—	
Male							1.47	1.09, 1.97	0.010	1.44	1.08, 1.93	0.013	1.44	1.08, 1.92	0.012
Education															
No high school degree										—	—		—	—	
High school degree										1.44	0.58, 3.58	0.4	1.43	0.58, 3.52	0.4
Some college, but no degree										1.57	0.64, 3.83	0.3	1.52	0.63, 3.68	0.4
2-year college degree										1.89	0.68, 5.30	0.2	1.87	0.68, 5.17	0.2
4-year college degree										1.32	0.56, 3.10	0.5	1.26	0.54, 2.96	0.6
Postgraduate degree										1.14	0.48, 2.73	0.8	1.10	0.46, 2.62	0.8
Urbanicity															
Urban													—	—	
Rural													0.99	0.68, 1.44	>0.9
Suburban													1.27	0.90, 1.79	0.2

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

3. 4. 2. Concern Questions:

3. 4. 2. 1. Concern Question: Political party identification was the most consistent predictor for whether a respondent perceived meat as having a substantial climate impact. Compared with Democrats, all other political affiliations were significantly more likely to endorse this position (Republicans: OR = 4.63, $p < 0.001$; Independents: OR = 1.76, $p = 0.002$; Other: OR = 2.74, $p = 0.037$; Not sure: OR = 2.84, $p = 0.022$). Education showed one significant contrast: respondents with postgraduate degrees were less likely than those without a high school degree to say that meat does not have a substantial climate impact (OR = 0.36, $p = 0.014$). No significant differences were observed by age group, gender or urbanicity (Table 8).

Table 8: Logistic Regression for Dismissal of Meat’s Climate Impact

Logistic Regression for Main Meat Concern Question – Odds of Choosing that Meat Does NOT Have a Substantial Impact on Climate Change															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—		—	—		—	—		—	—		—	—	
Republican	4.57	3.32, 6.30	<0.001	4.47	3.21, 6.22	<0.001	4.49	3.23, 6.24	<0.001	4.61	3.33, 6.36	<0.001	4.63	3.34, 6.42	<0.001
Independent	1.80	1.25, 2.58	0.001	1.84	1.28, 2.64	0.001	1.85	1.28, 2.66	<0.001	1.79	1.24, 2.58	0.002	1.76	1.23, 2.53	0.002
Other	2.89	1.09, 7.70	0.033	3.03	1.15, 8.01	0.025	2.99	1.14, 7.83	0.026	2.79	1.06, 7.35	0.039	2.74	1.06, 7.04	0.037
Not sure	3.02	1.26, 7.27	0.013	3.35	1.41, 7.94	0.006	3.23	1.37, 7.64	0.008	2.83	1.14, 7.02	0.024	2.84	1.17, 6.94	0.022
Agegroup															
18–24				—	—		—	—		—	—		—	—	
25–34				0.77	0.31, 1.87	0.6	0.76	0.32, 1.84	0.5	0.87	0.37, 2.06	0.8	0.89	0.38, 2.08	0.8
35–44				0.76	0.32, 1.82	0.5	0.76	0.32, 1.79	0.5	0.95	0.41, 2.19	>0.9	0.99	0.44, 2.23	>0.9
45–54				0.83	0.35, 2.00	0.7	0.83	0.35, 1.96	0.7	1.06	0.47, 2.39	0.9	1.08	0.49, 2.40	0.8
55–64				0.86	0.36, 2.08	0.7	0.86	0.36, 2.03	0.7	1.13	0.49, 2.62	0.8	1.15	0.51, 2.62	0.7
65–74				1.63	0.69, 3.87	0.3	1.61	0.69, 3.78	0.3	2.23	0.97, 5.14	0.059	2.23	0.98, 5.07	0.055
75+				1.14	0.48, 2.73	0.8	1.13	0.48, 2.65	0.8	1.64	0.71, 3.78	0.2	1.66	0.73, 3.75	0.2
Gender															
Female							—	—		—	—		—	—	
Male							0.89	0.66, 1.21	0.5	0.90	0.68, 1.21	0.5	0.90	0.68, 1.20	0.5
Education															
No high school degree										—	—		—	—	
High school degree										0.85	0.36, 2.01	0.7	0.84	0.37, 1.95	0.7
Some college, but no degree										0.79	0.34, 1.82	0.6	0.77	0.34, 1.74	0.5
2-year college degree										0.44	0.17, 1.18	0.10	0.44	0.17, 1.15	0.093
4-year college degree										0.65	0.28, 1.49	0.3	0.63	0.28, 1.41	0.3
Postgraduate degree										0.37	0.16, 0.86	0.020	0.36	0.16, 0.81	0.014
Urbanicity															
Urban													—	—	
Rural													1.01	0.67, 1.52	>0.9
Suburban													1.25	0.89, 1.76	0.2

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

3. 4. 2. 2. Concern Question, Branching “Yes”: Respondents who indicated that meat has a substantial impact on climate change were asked what concerns them most. Multinomial regression models were used to compare the odds of selecting each concern relative to the reference concern, “The way we produce meat,” which was the most commonly selected response overall (Table 9).

Among respondents who believe meat has a substantial impact on climate change, Republicans were nearly twice as likely than Democrats to select “The types of animals we raise for meat” rather than “The way we produce meat” (OR = 1.99, $p = 0.046$). In contrast, respondents identifying as “Other” were much less likely than Democrats to select this concern (OR = 0.07, $p = 0.010$). Respondents who were “Not sure” about their political affiliation showed two distinct patterns: they were less likely than Democrats to select “The amount of meat we eat” (OR = 0.13, $p = 0.027$) and more likely to select “I’m not sure” (OR = 5.48, $p = 0.042$) relative to production methods (Table 9).

Adults aged 55 and older were substantially more likely than those aged 18–24 to select “The types of animals we raise for meat” rather than production methods. This pattern suggests that, among those who believe meat contributes to climate change, concerns may shift from production practices toward the types of animals produced with age (Table 9). Suburban residents were more likely than urban residents to select “I’m not sure” rather than production methods (OR = 2.08, $p = 0.050$) (Table 9). Compared with respondents without a high school degree those with a high school degree were less likely to select “The types of animals we raise for meat” (OR = 0.21, $p = 0.028$), while those with a 2-year college degree were less likely to select “The amount of meat we eat” (OR = 0.16, $p = 0.032$). Gender was not significantly associated with concern type (Table 9).

Table 9: Multinomial Regression: Concerns of respondents who indicated that meat has an impact on climate change

Multinomial Logistic Regression for Meat Concern Impact (Yes): OR of Selecting Each Statement vs. 'The Way We Produce Meat'									
Characteristic	The amount of meat we eat			The types of animals we raise for meat			I'm not sure		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party									
Democrat	—	—		—	—		—	—	
Republican	1.18	0.60, 2.32	0.6	1.99	1.01, 3.90	0.046	0.90	0.40, 2.05	0.8
Independent	0.64	0.36, 1.14	0.13	0.83	0.40, 1.73	0.6	1.23	0.60, 2.52	0.6
Other	0.35	0.07, 1.85	0.2	0.07	0.01, 0.53	0.010	0.54	0.11, 2.63	0.4
Not sure	0.13	0.02, 0.79	0.027	1.09	0.09, 12.9	>0.9	5.48	1.07, 28.2	0.042
Agegroup									
18–24	—	—		—	—		—	—	
25–34	0.80	0.26, 2.44	0.7	8.91	0.82, 96.3	0.072	0.32	0.05, 2.10	0.2
35–44	0.44	0.14, 1.40	0.2	7.36	0.77, 70.1	0.082	0.75	0.14, 4.17	0.7
45–54	0.56	0.18, 1.71	0.3	5.11	0.49, 52.7	0.2	0.49	0.08, 2.94	0.4
55–64	0.59	0.18, 1.91	0.4	20.4	2.08, 199	0.010	1.31	0.24, 7.21	0.8
65–74	0.51	0.16, 1.64	0.3	15.2	1.57, 146	0.019	1.58	0.26, 9.38	0.6
75+	0.67	0.21, 2.13	0.5	14.4	1.32, 156	0.029	4.08	0.74, 22.4	0.11
Gender									
Female	—	—		—	—		—	—	
Male	1.31	0.79, 2.17	0.3	1.28	0.69, 2.38	0.4	0.92	0.51, 1.66	0.8
Education									
No high school degree	—	—		—	—		—	—	
High school degree	0.34	0.09, 1.25	0.11	0.21	0.05, 0.84	0.028	1.45	0.35, 6.01	0.6
Some college, but no degree	0.68	0.19, 2.47	0.6	0.59	0.14, 2.49	0.5	0.93	0.21, 4.11	>0.9
2-year college degree	0.16	0.03, 0.86	0.032	0.24	0.05, 1.15	0.075	0.29	0.06, 1.46	0.13
4-year college degree	0.55	0.15, 2.01	0.4	0.25	0.06, 1.00	0.051	0.52	0.11, 2.37	0.4
Postgraduate degree	0.37	0.10, 1.43	0.2	0.25	0.06, 1.10	0.066	0.49	0.11, 2.20	0.3
Urbanicity									
Urban	—	—		—	—		—	—	
Rural	0.50	0.21, 1.20	0.12	0.60	0.20, 1.82	0.4	1.53	0.63, 3.73	0.3
Suburban	1.12	0.66, 1.90	0.7	1.11	0.58, 2.12	0.8	2.08	1.00, 4.32	0.050
Abbreviations: CI = Confidence Interval, OR = Odds Ratio									

3. 4. 2. 3. Concern Question, Branching “No”: Respondents who did not believe meat has a substantial climate impact were asked which statement best reflects their views. Multinomial regression models compared all responses to the reference category, “Meat production can be sustainable with the right practices”, the most commonly selected option for overall respondents (Table 10).

Republicans were significantly more likely than Democrats to select “Climate change is not a priority for me” (OR = 4.22, $p < 0.0001$) and “The climate impact of meat is overstated” (OR = 4.08, $p < 0.0001$) rather than the reference statement “Meat production can be sustainable with the right practices”. These findings indicate that, among respondents unconcerned about meat’s climate impact, Republicans were more likely to express broader skepticism toward climate change or its relevance to meat. Respondents identifying politically as “Other” were less likely than Democrats to select “Other sectors, like energy, are more important” (OR = 0.11, $p = 0.0009$) relative to the reference category (Table 10).

Adults aged 65 and older were significantly more likely than those aged 18–24 to select “The climate impact of meat is overstated” and “Other sectors, like energy, are more important” rather than the reference statement. This suggests that older adults who do not view meat as a climate concern may be more inclined to attribute climate impacts to other sectors or to downplay meat’s role (Table 10).

Among respondents unconcerned about meat’s climate impact, males were less likely than females to select “I’m not sure” (OR = 0.39, $p < 0.001$) relative to the reference statement. This suggests that females in this subgroup were more uncertain about their views than males (Table 10).

Education showed several significant associations. Compared with respondents without a high school degree, those with a high school degree, some college, a 4-year college degree, and a postgraduate degree were all significantly less likely to select “Climate change is not a priority for me” relative to the reference statement. Additionally, respondents with some college or a 4-year degree were less likely to select “I’m not sure” relative to the reference category. These findings suggest that higher educational attainment may be associated with lower likelihood of dismissing climate change as a priority, even among respondents who do not believe meat contributes substantially to climate change. Urbanicity was not significantly associated with response patterns in this subgroup (Table 10).

Table 10: Multinomial Regression: Concerns of respondents who indicated that meat does not impact climate change

Multinomial Logistic Regression for Meat Concern Impact (No): OR of Selecting Each Statement vs. 'Meat Production Can Be Sustainable with the Right Practices'												
Characteristic	The climate impact of meat is overstated			Other sectors, like energy, are more important			Climate change is not a priority for me			I'm not sure		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party												
Democrat	—	—		—	—		—	—		—	—	
Republican	4.08	2.48, 6.73	<0.001	1.01	0.63, 1.62	>0.9	4.22	2.08, 8.58	<0.001	0.96	0.50, 1.85	0.9
Independent	1.47	0.75, 2.87	0.3	0.88	0.50, 1.53	0.6	1.75	0.85, 3.61	0.13	0.80	0.43, 1.49	0.5
Other	0.36	0.08, 1.59	0.2	0.11	0.02, 0.57	0.009	1.74	0.38, 8.05	0.5	0.31	0.08, 1.22	0.094
Not sure	1.05	0.23, 4.87	>0.9	0.46	0.12, 1.80	0.3	0.17	0.02, 1.39	0.10	0.45	0.13, 1.55	0.2
Agegroup												
18–24	—	—		—	—		—	—		—	—	
25–34	8.36	0.91, 76.6	0.060	3.69	0.94, 14.5	0.061	1.34	0.33, 5.46	0.7	2.05	0.49, 8.60	0.3
35–44	7.08	0.83, 60.6	0.074	3.79	1.05, 13.7	0.042	0.58	0.11, 2.95	0.5	3.54	0.86, 14.5	0.079
45–54	3.91	0.46, 33.5	0.2	3.12	0.84, 11.6	0.089	0.78	0.19, 3.24	0.7	2.74	0.71, 10.6	0.14
55–64	5.96	0.72, 49.2	0.10	3.17	0.89, 11.3	0.074	1.55	0.38, 6.27	0.5	2.93	0.69, 12.3	0.14
65–74	10.1	1.21, 84.5	0.033	5.05	1.42, 18.0	0.012	2.43	0.62, 9.56	0.2	2.71	0.70, 10.5	0.15
75+	12.0	1.40, 102	0.023	5.26	1.47, 18.8	0.011	3.40	0.85, 13.5	0.083	4.03	0.94, 17.2	0.061
Gender												
Female	—	—		—	—		—	—		—	—	
Male	1.12	0.71, 1.78	0.6	1.28	0.84, 1.93	0.2	0.87	0.48, 1.58	0.7	0.39	0.23, 0.64	<0.001
Education												
No high school degree	—	—		—	—		—	—		—	—	
High school degree	3.01	0.82, 11.0	0.10	1.41	0.44, 4.47	0.6	0.21	0.04, 0.99	0.049	0.72	0.24, 2.17	0.6
Some college, but no degree	2.16	0.52, 9.05	0.3	0.67	0.20, 2.24	0.5	0.13	0.03, 0.59	0.008	0.29	0.09, 0.95	0.041
2-year college degree	2.40	0.44, 13.2	0.3	1.01	0.25, 3.98	>0.9	0.23	0.04, 1.46	0.12	0.43	0.10, 1.82	0.3
4-year college degree	1.84	0.48, 7.00	0.4	0.71	0.22, 2.27	0.6	0.14	0.03, 0.65	0.013	0.13	0.04, 0.43	<0.001
Postgraduate degree	2.59	0.66, 10.1	0.2	0.42	0.12, 1.49	0.2	0.10	0.02, 0.50	0.005	0.29	0.08, 1.10	0.068
Urbanicity												
Urban	—	—		—	—		—	—		—	—	
Rural	1.69	0.88, 3.23	0.11	1.57	0.85, 2.89	0.2	1.79	0.72, 4.45	0.2	0.56	0.28, 1.11	0.10
Suburban	0.85	0.50, 1.46	0.6	1.46	0.83, 2.57	0.2	1.91	0.75, 4.88	0.2	0.71	0.38, 1.30	0.3

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

3. 4. 3. Solution Questions:

3. 4. 3. 1. Government Solution Question: Compared with Democrats, Republicans (OR = 2.69, $p < 0.001$), Independents (OR = 2.05, $p < 0.001$), and those unsure about their political affiliation (OR = 4.31, $p = 0.004$) were more likely to say that they would oppose a government recommendation to eat less meat for climate change (Table 11). Age was also associated – compared with respondents aged 18–24, adults aged 65–74 (OR = 2.77, $p = 0.008$) and older than 75 (OR = 2.39, $p = 0.024$) were significantly more likely to oppose the recommendation (Table 11). Respondents living in suburban areas were more likely than those living in urban areas to oppose the recommendation (OR = 1.61, $p = 0.006$). No statistically significant differences were observed for gender or education (Table 11).

Table 11: Logistic Regression for Preferred Policy Solutions: Opposing a Government Eat-Less-Meat Recommendation

Logistic Regression for Government Solution Question – Odds of Opposing a Government Eat-Less-Meat Recommendation															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Republican	2.83	2.04, 3.94	<0.001	2.70	1.94, 3.76	<0.001	2.72	1.96, 3.77	<0.001	2.75	1.99, 3.78	<0.001	2.69	1.96, 3.69	<0.001
Independent	2.02	1.42, 2.88	<0.001	2.11	1.46, 3.06	<0.001	2.13	1.47, 3.10	<0.001	2.15	1.49, 3.12	<0.001	2.05	1.43, 2.94	<0.001
Other	1.71	0.61, 4.77	0.3	2.10	0.74, 5.93	0.2	2.05	0.75, 5.60	0.2	2.04	0.73, 5.73	0.2	1.84	0.67, 5.03	0.2
Not sure	3.91	1.55, 9.83	0.004	5.01	1.97, 12.8	<0.001	4.77	1.88, 12.1	0.001	4.47	1.67, 11.9	0.003	4.31	1.61, 11.5	0.004
Agegroup															
18–24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
25–34	—	—	—	0.79	0.33, 1.91	0.6	0.78	0.33, 1.86	0.6	0.79	0.36, 1.77	0.6	0.80	0.37, 1.74	0.6
35–44	—	—	—	0.93	0.39, 2.20	0.9	0.93	0.40, 2.15	0.9	1.03	0.46, 2.30	>0.9	1.07	0.50, 2.29	0.9
45–54	—	—	—	1.07	0.45, 2.55	0.9	1.07	0.46, 2.48	0.9	1.22	0.55, 2.70	0.6	1.20	0.56, 2.57	0.6
55–64	—	—	—	1.87	0.79, 4.46	0.2	1.85	0.79, 4.33	0.2	2.15	0.98, 4.73	0.057	2.10	0.99, 4.44	0.053
65–74	—	—	—	2.55	1.08, 6.04	0.033	2.52	1.09, 5.85	0.031	2.96	1.34, 6.51	0.007	2.77	1.31, 5.89	0.008
75+	—	—	—	2.03	0.86, 4.82	0.11	1.99	0.85, 4.62	0.11	2.47	1.12, 5.45	0.026	2.39	1.12, 5.09	0.024
Gender															
Female	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Male	—	—	—	—	—	—	0.85	0.62, 1.15	0.3	0.84	0.62, 1.13	0.2	0.86	0.64, 1.15	0.3
Education															
No high school degree	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High school degree	—	—	—	—	—	—	—	—	—	1.41	0.59, 3.35	0.4	1.37	0.60, 3.14	0.5
Some college, but no degree	—	—	—	—	—	—	—	—	—	1.11	0.48, 2.57	0.8	1.07	0.48, 2.41	0.9
2-year college degree	—	—	—	—	—	—	—	—	—	1.03	0.39, 2.74	>0.9	1.01	0.39, 2.59	>0.9
4-year college degree	—	—	—	—	—	—	—	—	—	1.03	0.45, 2.35	>0.9	0.98	0.44, 2.17	>0.9
Postgraduate degree	—	—	—	—	—	—	—	—	—	0.61	0.27, 1.42	0.3	0.59	0.26, 1.32	0.2
Urbanicity															
Urban	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rural	—	—	—	—	—	—	—	—	—	—	—	—	1.37	0.91, 2.06	0.13
Suburban	—	—	—	—	—	—	—	—	—	—	—	—	1.61	1.15, 2.25	0.006

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

3. 4. 3. 2. Concerns about Solution Question: Across the eight concern statements, political party identification was the most consistent predictor, while age, gender, education, and urbanicity showed selective and statement-specific associations.

3. 4. 3. 2. 1. “It threatens job security for people who work in the meat industry”: Neither political party nor any sociodemographic characteristic was significantly associated with a higher or lower odds of selecting this concern (Table 12).

Table 12: Logistic Regression for Top Concerns about Meat Reduction Strategies: Choosing “It threatens job security for people who work in the meat industry”

Logistic Regression for Solution Concern: “It threatens job security for people who work in the meat industry” – Odds of Choosing Statement as a Top-Two Concern															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—		—	—		—	—		—	—		—	—	
Republican	1.07	0.70, 1.65	0.8	1.11	0.70, 1.75	0.7	1.11	0.71, 1.75	0.6	1.11	0.72, 1.72	0.6	1.13	0.72, 1.76	0.6
Independent	0.70	0.45, 1.10	0.12	0.72	0.46, 1.13	0.15	0.72	0.46, 1.13	0.2	0.69	0.43, 1.10	0.12	0.72	0.46, 1.14	0.2
Other	1.07	0.34, 3.37	>0.9	1.02	0.31, 3.36	>0.9	1.01	0.31, 3.30	>0.9	0.96	0.29, 3.22	>0.9	1.04	0.33, 3.30	>0.9
Not sure	1.00	0.39, 2.62	>0.9	0.93	0.35, 2.47	0.9	0.92	0.35, 2.45	0.9	0.86	0.31, 2.38	0.8	0.87	0.31, 2.47	0.8
Agegroup															
18–24				—	—		—	—		—	—		—	—	
25–34				0.80	0.26, 2.47	0.7	0.80	0.26, 2.46	0.7	0.88	0.32, 2.41	0.8	0.85	0.32, 2.26	0.7
35–44				1.04	0.36, 2.97	>0.9	1.04	0.36, 2.96	>0.9	1.14	0.44, 2.91	0.8	1.08	0.43, 2.69	0.9
45–54				0.86	0.29, 2.55	0.8	0.86	0.29, 2.53	0.8	0.94	0.36, 2.46	0.9	0.92	0.37, 2.31	0.9
55–64				0.58	0.19, 1.76	0.3	0.58	0.19, 1.74	0.3	0.63	0.24, 1.69	0.4	0.63	0.25, 1.61	0.3
65–74				0.78	0.26, 2.37	0.7	0.78	0.26, 2.34	0.7	0.87	0.33, 2.31	0.8	0.91	0.37, 2.24	0.8
75+				0.88	0.29, 2.68	0.8	0.87	0.29, 2.62	0.8	0.97	0.37, 2.57	>0.9	0.99	0.39, 2.47	>0.9
Gender															
Female							—	—		—	—		—	—	
Male							0.98	0.69, 1.39	0.9	1.00	0.68, 1.46	>0.9	0.98	0.68, 1.41	>0.9
Education															
No high school degree										—	—		—	—	
High school degree										0.72	0.26, 2.02	0.5	0.74	0.28, 1.98	0.5
Some college, but no degree										0.77	0.28, 2.11	0.6	0.81	0.30, 2.14	0.7
2-year college degree										0.56	0.17, 1.89	0.4	0.57	0.17, 1.87	0.4
4-year college degree										0.65	0.23, 1.78	0.4	0.69	0.26, 1.82	0.5
Postgraduate degree										0.81	0.28, 2.33	0.7	0.85	0.31, 2.37	0.8
Urbanicity															
Urban													—	—	
Rural													0.89	0.55, 1.42	0.6
Suburban													0.67	0.43, 1.04	0.071
Abbreviations: CI = Confidence Interval, OR = Odds Ratio															

3. 4. 3. 2. 2. “It undermines people’s ability to make their own food choices”: Compared with Democrats, Republicans (OR = 1.58, p = 0.002) and respondents who are unsure of their political affiliation (OR = 3.13, p = 0.011) were more likely to select this concern. No significant differences were observed by age, gender, education, or urbanicity (Table 13).

Table 13: Logistic Regression for Top Concerns about Meat Reduction Strategies: Choosing “It undermines people’s ability to make their own food choices”

Logistic Regression for Solution Concern: “It undermines people’s ability to make their own food choices” – Odds of Choosing Statement as a Top-Two Concern															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—		—	—		—	—		—	—		—	—	
Republican	1.61	1.21, 2.14	0.001	1.58	1.19, 2.10	0.002	1.58	1.19, 2.10	0.002	1.58	1.19, 2.11	0.002	1.58	1.18, 2.10	0.002
Independent	1.21	0.82, 1.79	0.3	1.23	0.83, 1.80	0.3	1.23	0.83, 1.82	0.3	1.21	0.82, 1.79	0.3	1.20	0.81, 1.78	0.4
Other	1.66	0.46, 5.92	0.4	1.74	0.50, 6.01	0.4	1.72	0.50, 5.89	0.4	1.63	0.48, 5.53	0.4	1.60	0.47, 5.39	0.4
Not sure	3.27	1.34, 7.96	0.009	3.46	1.43, 8.37	0.006	3.38	1.41, 8.10	0.006	3.15	1.31, 7.59	0.011	3.13	1.31, 7.48	0.011
Agegroup															
18–24				—	—		—	—		—	—		—	—	
25–34				0.83	0.33, 2.09	0.7	0.82	0.32, 2.09	0.7	0.86	0.34, 2.13	0.7	0.86	0.35, 2.12	0.7
35–44				0.94	0.39, 2.27	0.9	0.94	0.39, 2.28	0.9	1.03	0.43, 2.47	>0.9	1.04	0.44, 2.45	>0.9
45–54				1.12	0.46, 2.73	0.8	1.12	0.46, 2.74	0.8	1.24	0.52, 2.98	0.6	1.24	0.52, 2.96	0.6
55–64				1.00	0.42, 2.38	>0.9	0.99	0.41, 2.38	>0.9	1.11	0.47, 2.64	0.8	1.11	0.47, 2.62	0.8
65–74				1.14	0.49, 2.69	0.8	1.13	0.48, 2.69	0.8	1.30	0.56, 3.01	0.5	1.29	0.56, 2.99	0.6
75+				1.39	0.59, 3.29	0.5	1.38	0.58, 3.28	0.5	1.62	0.69, 3.79	0.3	1.61	0.69, 3.77	0.3
Gender															
Female							—	—		—	—		—	—	
Male							0.92	0.69, 1.24	0.6	0.92	0.70, 1.23	0.6	0.93	0.70, 1.24	0.6
Education															
No high school degree										—	—		—	—	
High school degree										1.03	0.45, 2.35	>0.9	1.02	0.45, 2.34	>0.9
Some college, but no degree										1.05	0.46, 2.40	>0.9	1.04	0.46, 2.39	>0.9
2-year college degree										0.74	0.28, 1.95	0.5	0.74	0.28, 1.94	0.5
4-year college degree										0.84	0.38, 1.85	0.7	0.83	0.38, 1.84	0.7
Postgraduate degree										0.60	0.27, 1.36	0.2	0.60	0.27, 1.35	0.2
Urbanicity															
Urban													—	—	
Rural													1.05	0.72, 1.54	0.8
Suburban													1.09	0.75, 1.57	0.6
Abbreviations: CI = Confidence Interval, OR = Odds Ratio															

3. 4. 3. 2. 3. “It feels like government overreach”: Compared with Democrats, Republicans (OR = 1.56, p = 0.006) and respondents who identify politically as “Other” were more likely to select this as a concern. No significant differences were observed by age, gender, education, or urbanicity (Table 14).

Table 14: Logistic Regression for Top Concerns about Meat Reduction Strategies: Choosing “It feels like government overreach”

Logistic Regression for Solution Concern: "It feels like government overreach" – Odds of Choosing Statement as a Top-Two Concern															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—		—	—		—	—		—	—		—	—	
Republican	1.68	1.22, 2.30	0.001	1.61	1.17, 2.21	0.004	1.60	1.16, 2.21	0.004	1.60	1.17, 2.19	0.003	1.56	1.14, 2.15	0.006
Independent	0.97	0.63, 1.50	0.9	0.97	0.62, 1.50	0.9	0.96	0.62, 1.50	0.9	1.00	0.65, 1.54	>0.9	0.96	0.62, 1.49	0.9
Other	3.88	1.27, 11.9	0.017	4.07	1.42, 11.7	0.009	4.11	1.44, 11.8	0.008	4.39	1.46, 13.1	0.008	4.06	1.41, 11.7	0.009
Not sure	2.03	0.66, 6.20	0.2	2.36	0.81, 6.86	0.12	2.41	0.83, 6.98	0.11	2.48	0.86, 7.18	0.094	2.40	0.84, 6.85	0.10
Agegroup															
18–24				—	—		—	—		—	—		—	—	
25–34				0.97	0.41, 2.27	>0.9	0.97	0.41, 2.27	>0.9	0.91	0.38, 2.13	0.8	0.92	0.40, 2.11	0.8
35–44				0.67	0.28, 1.58	0.4	0.67	0.28, 1.58	0.4	0.63	0.26, 1.55	0.3	0.65	0.27, 1.57	0.3
45–54				0.67	0.29, 1.52	0.3	0.67	0.29, 1.53	0.3	0.64	0.28, 1.47	0.3	0.64	0.28, 1.43	0.3
55–64				1.15	0.52, 2.53	0.7	1.15	0.52, 2.55	0.7	1.08	0.49, 2.39	0.8	1.05	0.48, 2.29	0.9
65–74				1.33	0.62, 2.88	0.5	1.34	0.62, 2.91	0.5	1.22	0.56, 2.66	0.6	1.16	0.54, 2.51	0.7
75+				1.33	0.62, 2.86	0.5	1.34	0.62, 2.90	0.5	1.26	0.58, 2.75	0.6	1.22	0.56, 2.64	0.6
Gender															
Female							—	—		—	—		—	—	
Male							1.07	0.78, 1.46	0.7	1.06	0.78, 1.43	0.7	1.08	0.80, 1.47	0.6
Education															
No high school degree										—	—		—	—	
High school degree										1.71	0.65, 4.50	0.3	1.68	0.64, 4.39	0.3
Some college, but no degree										1.42	0.53, 3.78	0.5	1.38	0.52, 3.66	0.5
2-year college degree										2.40	0.82, 7.01	0.11	2.38	0.82, 6.86	0.11
4-year college degree										1.46	0.57, 3.75	0.4	1.41	0.55, 3.62	0.5
Postgraduate degree										1.35	0.52, 3.50	0.5	1.31	0.50, 3.40	0.6
Urbanicity															
Urban													—	—	
Rural													1.28	0.82, 1.99	0.3
Suburban													1.47	0.99, 2.18	0.056
Abbreviations: CI = Confidence Interval, OR = Odds Ratio															

3. 4. 3. 2. 4. “It politicizes personal food decisions”: Republicans were more likely than Democrats to select this concern (OR = 1.54, p = 0.004). Education also showed a consistent pattern: compared with respondents without a high school degree, those with a high school degree (OR = 2.85, p = 0.019), some college (OR = 3.52, p = 0.004), a 4-year college degree (OR = 3.27, p = 0.007), or a postgraduate degree (OR = 3.14, p = 0.012) were all significantly more likely to select this concern. This suggests that higher educational attainment may be associated with greater sensitivity to the politicization of personal food choices. No significant differences were observed by age, gender, or urbanicity (Table 15).

Table 15: Logistic Regression for Top Concerns about Meat Reduction Strategies: Choosing “It politicizes personal food decisions”

Logistic Regression for Solution Concern: “It politicizes personal food decisions” – Odds of Choosing Statement as a Top-Two Concern															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—		—	—		—	—		—	—		—	—	
Republican	1.56	1.16, 2.10	0.003	1.52	1.14, 2.02	0.004	1.51	1.13, 2.01	0.005	1.55	1.17, 2.07	0.003	1.54	1.15, 2.07	0.004
Independent	1.47	0.97, 2.23	0.068	1.48	0.99, 2.23	0.058	1.46	0.97, 2.20	0.071	1.50	0.99, 2.27	0.054	1.49	0.99, 2.26	0.058
Other	0.77	0.25, 2.40	0.7	0.88	0.29, 2.71	0.8	0.91	0.30, 2.72	0.9	0.94	0.30, 2.95	>0.9	0.93	0.30, 2.86	0.9
Not sure	1.02	0.34, 3.02	>0.9	1.11	0.38, 3.24	0.8	1.21	0.42, 3.51	0.7	1.36	0.47, 3.98	0.6	1.34	0.46, 3.91	0.6
Agegroup															
18–24				—	—		—	—		—	—		—	—	
25–34				1.47	0.51, 4.28	0.5	1.48	0.52, 4.24	0.5	1.13	0.40, 3.18	0.8	1.12	0.40, 3.13	0.8
35–44				1.55	0.55, 4.38	0.4	1.56	0.57, 4.31	0.4	1.19	0.44, 3.19	0.7	1.18	0.44, 3.12	0.7
45–54				1.49	0.52, 4.24	0.5	1.50	0.54, 4.19	0.4	1.11	0.41, 3.04	0.8	1.10	0.41, 2.98	0.9
55–64				1.63	0.58, 4.61	0.4	1.66	0.60, 4.58	0.3	1.26	0.47, 3.37	0.6	1.24	0.47, 3.32	0.7
65–74				1.95	0.71, 5.37	0.2	2.00	0.75, 5.37	0.2	1.49	0.57, 3.90	0.4	1.47	0.56, 3.87	0.4
75+				1.63	0.59, 4.51	0.3	1.69	0.62, 4.55	0.3	1.23	0.46, 3.25	0.7	1.21	0.46, 3.21	0.7
Gender															
Female							—	—		—	—		—	—	
Male							1.30	0.95, 1.77	0.10	1.21	0.89, 1.63	0.2	1.22	0.90, 1.65	0.2
Education															
No high school degree										—	—		—	—	
High school degree										2.86	1.18, 6.89	0.020	2.85	1.19, 6.84	0.019
Some college, but no degree										3.52	1.47, 8.42	0.005	3.52	1.48, 8.39	0.004
2-year college degree										2.37	0.80, 6.97	0.12	2.36	0.80, 6.95	0.12
4-year college degree										3.26	1.37, 7.78	0.008	3.27	1.38, 7.77	0.007
Postgraduate degree										3.13	1.27, 7.69	0.013	3.14	1.28, 7.69	0.012
Urbanicity															
Urban													—	—	
Rural													1.08	0.69, 1.70	0.7
Suburban													1.01	0.70, 1.46	>0.9

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

3. 4. 3. 2. 5. “It oversimplifies the complexity of climate change”: Republicans were significantly less likely than Democrats to select this concern (OR = 0.51, $p < 0.001$). No other demographic characteristics were significantly associated with selecting this concern (Table 16).

Table 16: Logistic Regression Top Concerns about Meat Reduction Strategies: Choosing “It oversimplifies the complexity of climate change”

Logistic Regression for Solution Concern: “It oversimplifies the complexity of climate change” – Odds of Choosing Statement as a Top-Two Concern															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—		—	—		—	—		—	—		—	—	
Republican	0.54	0.37, 0.77	<0.001	0.53	0.37, 0.76	<0.001	0.53	0.37, 0.76	<0.001	0.52	0.35, 0.75	<0.001	0.51	0.35, 0.75	<0.001
Independent	1.31	0.80, 2.16	0.3	1.33	0.82, 2.15	0.3	1.31	0.80, 2.17	0.3	1.31	0.83, 2.08	0.2	1.27	0.82, 1.97	0.3
Other	0.76	0.30, 1.95	0.6	0.72	0.24, 2.13	0.6	0.75	0.26, 2.17	0.6	0.79	0.24, 2.57	0.7	0.75	0.22, 2.59	0.6
Not sure	0.34	0.11, 1.08	0.068	0.35	0.10, 1.20	0.095	0.38	0.11, 1.30	0.12	0.45	0.14, 1.47	0.2	0.45	0.13, 1.52	0.2
Agegroup															
18–24				—	—		—	—		—	—		—	—	
25–34				0.63	0.19, 2.08	0.4	0.63	0.18, 2.16	0.5	0.64	0.24, 1.70	0.4	0.67	0.25, 1.75	0.4
35–44				0.63	0.20, 1.98	0.4	0.63	0.19, 2.04	0.4	0.52	0.20, 1.35	0.2	0.55	0.22, 1.41	0.2
45–54				0.53	0.16, 1.71	0.3	0.53	0.16, 1.77	0.3	0.42	0.16, 1.10	0.078	0.43	0.16, 1.13	0.087
55–64				0.80	0.25, 2.57	0.7	0.81	0.24, 2.72	0.7	0.65	0.25, 1.69	0.4	0.67	0.26, 1.72	0.4
65–74				0.85	0.27, 2.67	0.8	0.86	0.26, 2.85	0.8	0.70	0.27, 1.77	0.4	0.69	0.27, 1.78	0.4
75+				0.88	0.28, 2.78	0.8	0.91	0.27, 3.03	0.9	0.66	0.26, 1.69	0.4	0.67	0.26, 1.71	0.4
Gender															
Female							—	—		—	—		—	—	
Male							1.27	0.84, 1.94	0.3	1.30	0.89, 1.89	0.2	1.31	0.91, 1.88	0.15
Education															
No high school degree										—	—		—	—	
High school degree										0.44	0.15, 1.28	0.13	0.43	0.15, 1.26	0.12
Some college, but no degree										0.64	0.25, 1.68	0.4	0.62	0.24, 1.62	0.3
2-year college degree										0.65	0.22, 1.92	0.4	0.64	0.22, 1.86	0.4
4-year college degree										1.05	0.42, 2.63	>0.9	1.00	0.40, 2.53	>0.9
Postgraduate degree										1.61	0.64, 4.04	0.3	1.54	0.61, 3.89	0.4
Urbanicity															
Urban													—	—	
Rural													1.01	0.63, 1.61	>0.9
Suburban													1.45	0.94, 2.24	0.089

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

3. 4. 3. 2. 6. “It could lead to nutrient deficiencies”: Age was the only significant predictor for this concern. All age groups 45 and older were less likely than those aged 18–24 to select this concern. No significant differences were observed by other demographics (Table 17).

Table 17: Logistic Regression for Top Concerns about Meat Reduction Strategies: Choosing “It could lead to nutrient deficiencies”

Logistic Regression for Solution Concern: “It could lead to nutrient deficiencies” – Odds of Choosing Statement as a Top-Two Concern															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—		—	—		—	—		—	—		—	—	
Republican	1.25	0.88, 1.77	0.2	1.40	0.97, 2.01	0.072	1.40	0.97, 2.02	0.068	1.41	1.00, 1.99	0.052	1.41	0.99, 2.01	0.059
Independent	1.22	0.71, 2.09	0.5	1.23	0.75, 2.01	0.4	1.23	0.75, 2.02	0.4	1.26	0.78, 2.06	0.3	1.25	0.78, 2.00	0.4
Other	1.42	0.40, 5.01	0.6	1.01	0.28, 3.61	>0.9	0.98	0.27, 3.50	>0.9	1.09	0.33, 3.63	0.9	1.07	0.32, 3.59	>0.9
Not sure	1.49	0.58, 3.83	0.4	1.16	0.39, 3.48	0.8	1.11	0.37, 3.31	0.9	1.08	0.33, 3.54	>0.9	1.07	0.32, 3.57	>0.9
Agegroup															
18–24				—	—		—	—		—	—		—	—	
25–34				0.44	0.17, 1.15	0.094	0.44	0.17, 1.13	0.088	0.39	0.16, 0.94	0.036	0.39	0.17, 0.94	0.035
35–44				0.47	0.18, 1.19	0.11	0.46	0.18, 1.17	0.10	0.42	0.17, 1.01	0.052	0.42	0.18, 1.00	0.050
45–54				0.36	0.14, 0.92	0.032	0.35	0.14, 0.90	0.029	0.32	0.13, 0.77	0.011	0.32	0.13, 0.77	0.010
55–64				0.28	0.11, 0.71	0.008	0.27	0.11, 0.70	0.007	0.24	0.10, 0.58	0.002	0.24	0.10, 0.58	0.001
65–74				0.24	0.09, 0.62	0.003	0.24	0.09, 0.61	0.003	0.21	0.09, 0.50	<0.001	0.21	0.08, 0.50	<0.001
75+				0.24	0.09, 0.61	0.003	0.23	0.09, 0.60	0.002	0.20	0.08, 0.49	<0.001	0.20	0.08, 0.49	<0.001
Gender															
Female							—	—		—	—		—	—	
Male							0.87	0.60, 1.26	0.5	0.84	0.58, 1.20	0.3	0.84	0.58, 1.20	0.3
Education															
No high school degree										—	—		—	—	
High school degree										1.81	0.55, 5.99	0.3	1.80	0.55, 5.94	0.3
Some college, but no degree										1.25	0.40, 3.89	0.7	1.24	0.40, 3.87	0.7
2-year college degree										1.39	0.38, 5.01	0.6	1.39	0.39, 4.98	0.6
4-year college degree										1.65	0.54, 5.09	0.4	1.64	0.53, 5.06	0.4
Postgraduate degree										1.97	0.63, 6.15	0.2	1.95	0.62, 6.12	0.3
Urbanicity															
Urban													—	—	
Rural													1.03	0.65, 1.63	>0.9
Suburban													1.10	0.72, 1.69	0.7
Abbreviations: CI = Confidence Interval, OR = Odds Ratio															

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

3. 4. 3. 2. 7. “It’s too focused on individual behavior instead of systemic change”:

Republicans were less likely than Democrats to select this concern (OR = 0.47, $p < 0.001$).

Respondents with a 2-year college degree (OR = 3.77, $p\text{-value} = 0.046$), 4-year college degree (OR = 3.97, $p\text{-value} = 0.013$), or postgraduate degree (OR = 4.60, $p\text{-value} = 0.007$) were more likely than those without a high school degree to select it. These findings suggest that Democrats and individuals with higher education levels are more likely to view eat-less-meat efforts as overly focused on individual behavior rather than systemic change. No significant differences were observed by age, gender, or urbanicity (Table 18).

Table 18: Logistic Regression for Top Concerns about Meat Reduction Strategies: Choosing “It’s too focused on individual behavior instead of systemic change”

Logistic Regression for Solution Concern: “It’s too focused on individual behavior instead of systemic change” – Odds of Choosing Statement as a Top-Two Concern															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—		—	—		—	—		—	—		—	—	
Republican	0.46	0.32, 0.66	<0.001	0.47	0.32, 0.68	<0.001	0.47	0.32, 0.68	<0.001	0.46	0.32, 0.67	<0.001	0.47	0.32, 0.68	<0.001
Independent	1.05	0.72, 1.53	0.8	1.05	0.73, 1.52	0.8	1.05	0.72, 1.51	0.8	1.14	0.79, 1.64	0.5	1.14	0.79, 1.65	0.5
Other	1.04	0.36, 3.00	>0.9	1.07	0.39, 2.94	0.9	1.08	0.39, 2.96	0.9	1.29	0.47, 3.55	0.6	1.31	0.47, 3.60	0.6
Not sure	0.42	0.15, 1.17	0.10	0.39	0.14, 1.07	0.068	0.40	0.14, 1.11	0.080	0.54	0.18, 1.60	0.3	0.54	0.18, 1.64	0.3
Agegroup															
18–24				—	—		—	—		—	—		—	—	
25–34				1.99	0.75, 5.25	0.2	1.99	0.76, 5.21	0.2	1.43	0.54, 3.80	0.5	1.43	0.54, 3.80	0.5
35–44				1.86	0.72, 4.80	0.2	1.86	0.73, 4.75	0.2	1.19	0.46, 3.07	0.7	1.20	0.46, 3.08	0.7
45–54				1.39	0.53, 3.65	0.5	1.39	0.54, 3.62	0.5	0.85	0.33, 2.18	0.7	0.86	0.34, 2.19	0.8
55–64				1.11	0.43, 2.91	0.8	1.12	0.43, 2.90	0.8	0.66	0.25, 1.73	0.4	0.67	0.26, 1.74	0.4
65–74				1.18	0.45, 3.09	0.7	1.19	0.46, 3.08	0.7	0.68	0.25, 1.82	0.4	0.69	0.26, 1.84	0.5
75+				1.07	0.41, 2.79	0.9	1.08	0.41, 2.79	0.9	0.57	0.21, 1.54	0.3	0.58	0.22, 1.55	0.3
Gender															
Female							—	—		—	—		—	—	
Male							1.09	0.78, 1.51	0.6	1.01	0.73, 1.40	>0.9	1.01	0.73, 1.39	>0.9
Education															
No high school degree										—	—		—	—	
High school degree										1.95	0.65, 5.86	0.2	1.96	0.65, 5.87	0.2
Some college, but no degree										2.52	0.83, 7.65	0.10	2.52	0.83, 7.64	0.10
2-year college degree										3.77	1.02, 13.9	0.046	3.77	1.02, 13.9	0.046
4-year college degree										3.98	1.34, 11.8	0.013	3.97	1.34, 11.8	0.013
Postgraduate degree										4.61	1.51, 14.0	0.007	4.60	1.51, 14.0	0.007
Urbanicity															
Urban													—	—	
Rural													0.94	0.58, 1.54	0.8
Suburban													0.98	0.67, 1.42	>0.9
Abbreviations: CI = Confidence Interval, OR = Odds Ratio															

3. 4. 3. 2. 8. “I don’t have any of these concerns”: Democrats were most likely to express no concerns, as respondents identifying as Republicans (OR = 0.68, p = 0.025), Independents (OR = 0.63, p-value = 0.024), Other (OR = 0.20, p < 0.001), and Not sure (OR = 0.26, p = 0.003) were less likely to report having no concerns as compared to Democrats. Age showed a consistent pattern: respondents in all age groups above 25 were significantly more likely than those aged 18–24 to report having no concerns, indicating that older adults were more likely to express no concerns. Education also played a role, as respondents with a 2-year degree, 4-year degree, or postgraduate degree were less likely than those without a high school degree to report having no concerns. No significant differences were observed by gender or urbanicity (Table 19).

Table 19: Logistic Regression for Top Concerns about Meat Reduction Strategies: Choosing “I don’t have any of these concerns”

Logistic Regression for Solution Concern: “I don’t have any of these concerns” – Odds of Choosing Statement															
Characteristic	crude			adjusted1			adjusted2			adjusted3			adjusted4		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Party															
Democrat	—	—		—	—		—	—		—	—		—	—	
Republican	0.73	0.52, 1.04	0.081	0.70	0.50, 0.99	0.044	0.71	0.51, 1.00	0.050	0.69	0.50, 0.97	0.031	0.68	0.48, 0.95	0.025
Independent	0.67	0.43, 1.04	0.073	0.66	0.43, 1.02	0.059	0.67	0.44, 1.04	0.072	0.64	0.42, 0.97	0.034	0.63	0.42, 0.94	0.024
Other	0.20	0.08, 0.49	<0.001	0.25	0.11, 0.59	0.002	0.25	0.11, 0.59	0.002	0.21	0.09, 0.52	<0.001	0.20	0.08, 0.50	<0.001
Not sure	0.34	0.15, 0.76	0.008	0.38	0.17, 0.83	0.016	0.35	0.16, 0.79	0.011	0.27	0.11, 0.64	0.003	0.26	0.11, 0.63	0.003
Agegroup															
18–24				—	—		—	—		—	—		—	—	
25–34				3.33	1.03, 10.7	0.044	3.25	1.01, 10.5	0.049	4.38	1.28, 14.9	0.018	4.26	1.26, 14.4	0.020
35–44				3.67	1.13, 11.9	0.031	3.60	1.11, 11.7	0.034	5.11	1.43, 18.2	0.012	4.93	1.40, 17.3	0.013
45–54				4.64	1.47, 14.7	0.009	4.53	1.42, 14.4	0.011	6.52	1.90, 22.3	0.003	6.29	1.85, 21.3	0.003
55–64				4.91	1.54, 15.7	0.007	4.77	1.48, 15.3	0.009	7.09	2.03, 24.7	0.002	6.84	1.98, 23.6	0.002
65–74				3.13	1.01, 9.72	0.049	3.03	0.97, 9.46	0.057	4.68	1.38, 15.8	0.013	4.53	1.36, 15.2	0.014
75+				3.96	1.26, 12.5	0.019	3.79	1.19, 12.0	0.024	6.25	1.82, 21.5	0.004	6.06	1.78, 20.6	0.004
Gender															
Female							—	—		—	—		—	—	
Male							0.79	0.57, 1.10	0.2	0.84	0.60, 1.16	0.3	0.85	0.61, 1.19	0.3
Education															
No high school degree										—	—		—	—	
High school degree										0.55	0.25, 1.21	0.14	0.55	0.25, 1.21	0.14
Some college, but no degree										0.55	0.24, 1.29	0.2	0.57	0.24, 1.32	0.2
2-year college degree										0.37	0.15, 0.95	0.039	0.38	0.15, 0.96	0.042
4-year college degree										0.38	0.17, 0.87	0.022	0.39	0.17, 0.89	0.026
Postgraduate degree										0.24	0.10, 0.58	0.002	0.25	0.10, 0.60	0.002
Urbanicity															
Urban													—	—	
Rural													1.19	0.74, 1.90	0.5
Suburban													0.97	0.67, 1.39	0.9

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

3. 5: Research Question 3: To what extent do Democrats and Republicans mis-perceive the values-based views of those with opposing political affiliations as it relates to meat and climate issues?

To assess perception gaps, we compared Republicans' estimates of Democrat agreement with each values-based statement to Democrats' actual levels of agreement, and vice versa (i.e., Democrats' estimates of Republican agreement with each values-based statement compared to Republicans' actual agreement). Significant perception gaps were observed for the same statements that had highest level of agreement for overall respondents and across parties – ($p < 0.05$) for three statements “I shouldn’t have to give up meat for the benefit of other people,” “criticizing meat over other personal choices is a double standard,” and “we shouldn’t blindly follow experts who say eating less meat helps the planet” (Table 20 and Table 21). For each of these statements, both Democrats and Republicans underestimated the proportion of the opposing party that agreed (Figure 12 and Figure 13). In other words, members of both political groups believed the opposing party was less likely than it actually was to endorse statements framing meat consumption as a personal choice and expressing resistance to reduce intake for climate reasons. These findings indicate substantial bipartisan misperceptions regarding shared values related to meat consumption and climate change.

In contrast, perception gaps for the statements “eating less meat feels like turning your back on communities that depend on ranching” and “avoiding meat is unnatural” were not statistically significant ($p > 0.05$) (Table 20 and Table 21), suggesting more accurate cross-partisan perceptions for these values-based views.

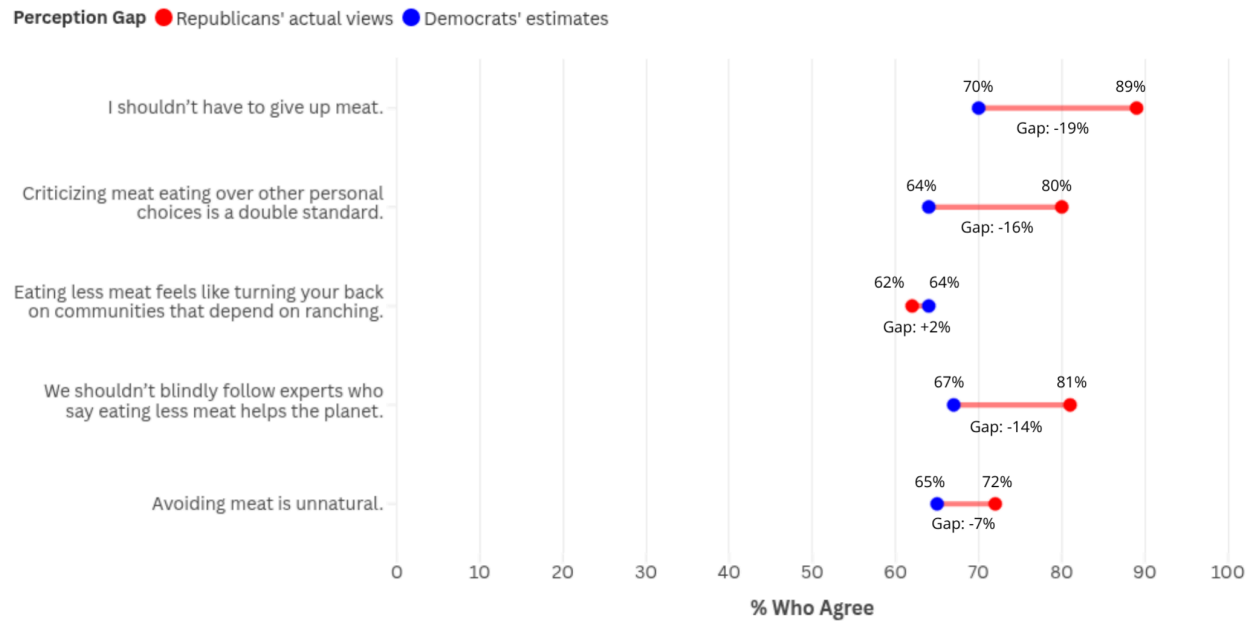


Figure 12: Republicans' Actual Agreement vs. Democrats' Estimates

Table 20: Republicans' Actual Agreement vs. Democrats' Estimates, Statistical Analysis

Weighted Perception Gap: Republicans' Actual Agreement vs Democrats' Estimates				
Statement	Actual % of Republicans Agreeing (Weighted)	Mean Democrat Estimate (%) (Weighted)	t-test (Welch, Weighted)	Bonferroni-adjusted p
I shouldn't have to give up meat.	89%	70%	t(1745.9) = 8.09	< .001
Criticizing meat eating over other personal choices is a double standard.	80%	64%	t(1389.8) = 4.96	< .001
Eating less meat feels like turning your back on communities that depend on ranching.	62%	64%	t(1404.2) = -0.38	= 1.000
We shouldn't blindly follow experts who say eating less meat helps the planet.	81%	67%	t(1588.9) = 6.01	< .001
Avoiding meat is unnatural.	72%	65%	t(1428.2) = 2.30	= 0.107

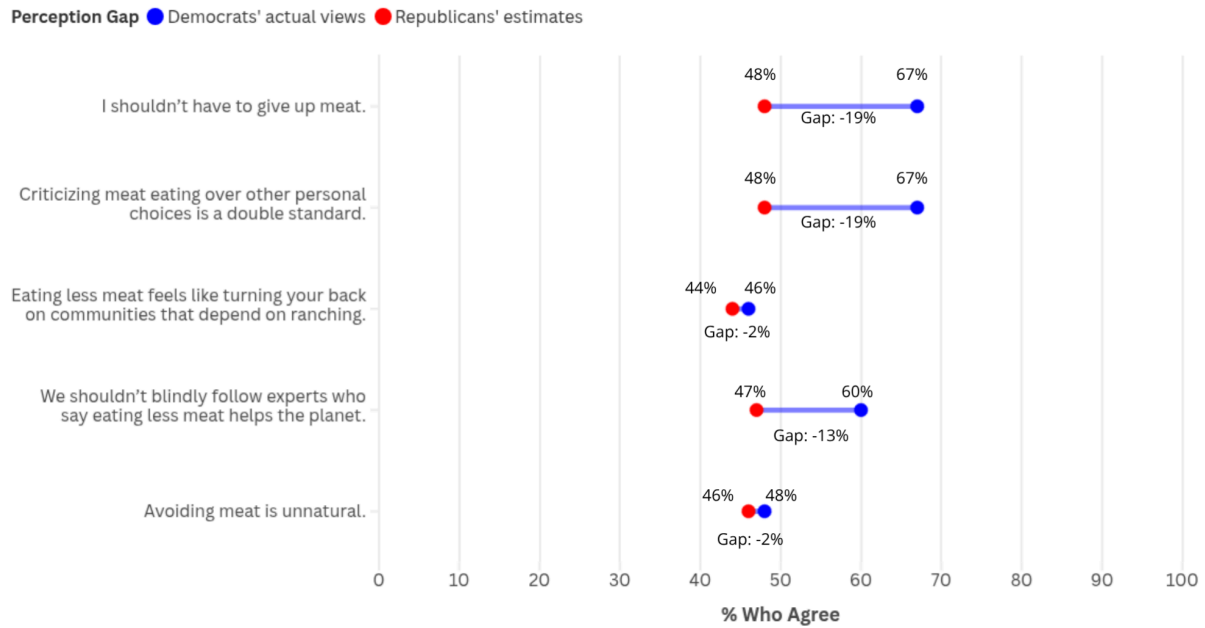


Figure 13: Democrats' Actual Agreement vs. Republicans' Estimates

Table 21: Democrats' Actual Agreement vs. Republicans' Estimates, Statistical Analysis

Weighted Perception Gap: Democrats' Actual Agreement vs Republicans' Estimates				
Statement	Actual % of Democrats Agreeing (Weighted)	Mean GOP Estimate (%) (Weighted)	t-test (Welch, Weighted)	Bonferroni-adjusted p
I shouldn't have to give up meat.	67%	48%	t(1407.0) = 6.44	< .001
Criticizing meat eating over other personal choices is a double standard.	67%	48%	t(1371.6) = 6.52	< .001
Eating less meat feels like turning your back on communities that depend on ranching.	46%	44%	t(1456.2) = 0.38	= 1.000
We shouldn't blindly follow experts who say eating less meat helps the planet.	60%	47%	t(1511.1) = 5.13	< .001
Avoiding meat is unnatural.	48%	46%	t(1418.4) = 0.95	= 1.000

4. Discussion:

4. 1. Values:

4. 1. 1. Values-Based Questions:

The findings for the values-based questions demonstrate a clear and consistent pattern: Americans predominantly interpret meat consumption as a matter of personal autonomy rather than a behavior determined by its social or environmental implications. The high level of agreement (69%) with the authority/subversion statement may also reflect the broader trends of declining trust in science/experts – a 2023 Pew Research Center Poll indicated that 27% of Americans say they have not too much or no confidence in scientists to act in the public's best interests, a sharp increase from 12% in April 2020.⁵³ The high level of agreement with this statement likely reflects both a hesitation to trust experts, as well as a disbelief of the impact that meat has on climate change.

The finding that meat eating is perceived as a personal dietary choice, instead of a decision made based on its social or environmental consequences, aligns with previous findings that personal needs, including taste, cost, convenience and health, are the primary determinants of food choices.^{54,55} The International Food Information Council (IFIC) 2025 survey found that only 25% of American consumers reported environmental sustainability as an impactful determinant of food and beverage purchase decisions, a drop from 31% in 2024.⁵⁴ The Yale Program on Climate Change Communication found that 65% of Americans say they "rarely" or "never" look for information about the environmental impact of different products and/or foods.²⁷ Similarly, studies looking specifically at what motivates individuals who aim to reduce their meat consumption find cost and health to be primary motivators, while environment and animal welfare are often reported as the least important considerations.⁵⁶

4. 1. 2. Values-Based Questions, Stratified by Political Affiliation:

The statements with the highest overall agreement continue to display high levels of agreement across political parties. This suggests that autonomy-based justifications for meat consumption are not confined to a single political group. The cross-partisan protection of meat aligns with existing literature that suggests that most Americans continue to have a meat-based diet, irrespective of political party.³²

However, our results also indicate some political divergence. Republicans and those unsure of their political affiliation were the only political groups displayed higher levels of agreement, as compared to the other political affiliations, with the value statements that suggest seeing eating meat as normal and a way to support ranching communities. The higher percentage of Republicans agreeing with all the statements aligns with previous literature that individuals with a conservative ideology, as compared to more liberal ones, are more likely to report eating more meat,³⁰ preferring a meat-heavy diet,³² report greater distrust of information from authorities that propose a link between red meat production and negative environmental impact,³¹ and perceive meat as being more socially important and financially beneficial for the country.³¹ However, the similar findings for participants who are “Not sure” of their political affiliation is curious, as they stand out as a group with similarly conservative values as Republicans, but chose not to classify themselves as Republicans.

4. 1. 3. Regression Models for Values-Based Questions:

Political affiliation was a consistent predictor for all five values-based statements, even after adjusting for other demographics. Republican respondents (as compared to Democrats) showed a greater likelihood to agree with all five statements, suggesting a higher likelihood of agreement with perceiving meat as a personal dietary choice, having skepticism toward expert

authority, as well as valuing the naturalness and social role of meat. Independents and participants who are unsure of their political affiliation also had higher odds of agreeing with some values-based statements as compared to Democrats, although the significant findings for these groups was less consistent. These patterns suggest that political identity, particularly being a Republican as compared to a Democrat, is the strongest predictor of values-based perceptions of meat and climate issues.

Other sociodemographic factors also showed associations with the values-based statements. Gender was not a systematic predictor, but male respondents were significantly less likely than female respondents to agree that criticizing meat more than other personal choices constitutes a double standard, yet more likely to view avoiding meat as unnatural. These opposing directions suggest that gender norms around meat may influence how individuals interpret fairness and naturalness in the context of meat consumption. More specifically, men may be more likely to consume meat based on an assumption that doing so is natural, whereas females may be more open to the idea that meat consumption contributes to climate change as much as other personal choices.

Age showed limited but notable associations. Older adults, aged 65–74, were more likely than younger adults to agree that they should not have to give up meat for others' benefit, while respondents aged 45–54 were less likely to endorse skepticism toward experts. These findings suggest that age-related differences may reflect generational variation in perceived social responsibility associated with meat eating and trust in experts.

Urbanicity was largely unrelated to values-based agreement, with one exception: suburban residents were much more likely than urban residents to agree that they should not have to give up meat for others. This isolated effect may reflect suburban–urban differences in

perceived social responsibility around meat eating, with suburban residents displaying a stronger prioritization of personal choice towards dietary choices as compared to urban residents.

4. 1. 4. Perception Gaps for Values-Based Questions:

Beyond the ideological and sociodemographic related differences identified in the previous sections, our results reveal a significant perception gap. While our findings show that Americans across the political spectrum feel strongly about personal choice, they consistently underestimate the extent to which the opposing political party holds these same values – both Democrats and Republicans underestimated how much the other group endorsed the values-based statements with the highest cross-partisan agreement. This suggests a false polarization where partisans perceive a chasm that is much wider than the reality.

This aligns with the More in Common “Perception Gap” reports, which found that Americans routinely underestimate areas of shared agreement.³³ For example, Democrats tend to underestimate the percent of Republicans who agree with the statements “Racism still exists in America”, and Republicans tend to underestimate the percent of Democrats who agree with the statement “I am proud to be American, though I acknowledge my country’s flaws”.³³ In this analysis, both sides seem to view the other side as more willing to give up personal choice for social outcomes than they actually are. This suggests that affective polarization, or the tendency to dislike and distrust the out-group (opposing party, in this case), may be fueled by being unaware of how Americans feel about their autonomy.

Estimates for two values-based statements, one involving views about the naturalness of meat and the perceived community impact of reducing meat intake, were more accurate. This suggests that respondents had a clearer sense of how the opposing party actually felt about these particular beliefs. Perception gaps have been found to be largest for issues that have become

symbolically linked to political identity, and smaller for issues that are less central to partisan narratives.³³ This pattern may help explain why respondents showed relatively accurate perceptions for the item concerning the naturalness of avoiding meat; Americans appear to have a reasonably clear sense of the percent of the opposing party hold this belief. However, this explanation is less convincing for the item related to the community impact of reducing meat intake, since issues involving ranching communities are often tied to a conservative ideology and the Republican Party. The unexpectedly small perception gap for this belief therefore suggests that, despite its political salience, respondents may still have a more accurate understanding of how widely it is endorsed across party lines. Our present findings add to the body of evidence that suggests that, while Americans still harbor disagreements about certain issues, they also have more in common with the opposing political party than they believe.

4. 2. Concerns:

4. 2. 1. Concern Questions:

The results for the survey's concern questions indicate a disconnect between scientific consensus about the impact of meat on climate change and public perception: 65% of Americans do not believe that meat consumption has a substantial impact on climate change. Our findings align with previous evidence, which suggest that 23% of Americans believe that beef does not contribute to global warming at all, while only 27% of Americans think that beef contributes to global warming a lot.²⁷

Among 65% who do not believe the link, the primary justification seems to be that many (36%) believe that meat production can be sustainable with the right practices. Even among the 35% who acknowledged a substantial climate impact from meat, many (45%) identified “the way we produce meat” as the primary concern rather than amount consumed. This suggests that even

for climate-aware Americans, the focus is on systemic changes to make meat production more sustainable, over personal dietary changes. Together, these findings indicate that while the existence of a link between climate and meat might be contested, there is shared consensus, across both groups who believe and do not believe that meat has a substantial impact on climate change, on the importance of sustainable meat production practices.

While an overarching interest in sustainable meat production practices is a hopeful finding for sustainable food systems, it is important to recognize that sustainable meat alternatives, such as organic and grass-fed meat, often come with higher greenhouse gas emissions and environmental impacts than conventionally-produced meat.^{57,58} Evidence suggests that the most effective way to decrease the greenhouse gas emissions associated with meat is to decrease the amount of meat consumed.^{57,59} Therefore, while a public interest in sustainable agricultural practices is promising, it does not lead to the decrease in greenhouse gas emissions that could come from decreasing over-consumption of meat. These findings suggest that stronger efforts to increase Americans' understanding about the impact of meat on climate change and their incentives to decrease meat consumption are needed.

4. 2. 2. Concern Questions, Stratified by Political Affiliation:

Most participants across political affiliations believe that meat does not have a substantial impact on climate change. Democrats are the only exception, although only slightly more than half of participants (52%) reported that meat has a substantial impact on climate change. The finding that 81% of Republicans believe that meat does not have a substantial impact on climate change aligns with previous findings that conservative ideologies are associated with being more skeptical about meat being related to climate change.³¹ The finding that most respondents who identify politically as Independent, “Not sure” and “Other” believe that meat does not have a

substantial impact on climate change suggests that this belief is not confined to self-identified conservatives, but is also prevalent among politically unaffiliated and less ideologically anchored respondents, placing them closer to Republicans than to Democrats on this issue.

An interest in more sustainable meat production methods was high across most political affiliations and among respondents who believe that meat has and does not have an impact on climate change. This finding highlights a key point of agreement across Americans. This aligns with a previous finding by the Yale Program on Climate Change Communication, which found that, independent of political affiliation, most Americans were in support of providing federal funding to help farmers improve practices to protect and restore the soil so it absorbs more carbon.⁶⁰ As discussed in section 4. 2. 1., this widespread public interest in sustainable agricultural practices is promising. However, it is important to note that it may bring sustainability tradeoffs, and does not target the greenhouse gas emissions from over-consumption of meat.

There were only two deviations from the pattern described. Republicans who believe that meat does not have a substantial impact on climate change and participants who were “Not sure” of their political affiliation. Republicans most often expressed low concern about climate change overall. While awareness and concern about climate change has increased among Republicans over the past decade,⁶¹ Republicans continue to be least concerned about climate change, as compared to Americans with other political affiliations.⁶⁰ Additionally, respondents who were unsure of their political affiliation and reported that meat has a substantial impact on climate change were more likely to report uncertainty about their reasoning.

4. 2. 3. Regression Models for Concern Questions:

Across all concerns-related questions, political affiliation again emerged as the most consistent predictor of how Americans interpret meat's role in climate change. As compared to Democrats, Republicans had the highest likelihood of stating that meat does not have a substantial climate impact, followed in order by politically unsure respondents, those identifying as "Other," and Independents. This finding remained statistically significant after adjusting for other demographics, suggesting that partisan identity may fundamentally influence whether respondents view meat as environmentally consequential.

Education was the only demographic factor with significant associations for the main concern question: respondents with postgraduate degrees were significantly less likely than those without a high school degree to dismiss the climate impact of meat. This suggests that advanced higher education may be associated with increased awareness about meat's climate impact. This aligns with previous findings that educational attainment is a strong predictor of climate change awareness worldwide.⁶²

For respondents who believed meat has a substantial climate impact, a multinomial regression compared each concern category to the reference view that production methods are the primary issue. Political affiliation continued to significantly influence outcome, but its influence was more targeted. Republicans who were concerned about the impact of meat on climate change were nearly twice as likely than Democrats with the same beliefs to express concern over the types of animals raised for meat over concern about meat production methods. In contrast, respondents identifying with "Other" political affiliations were far less likely than Democrats to select the species-related concern. Those unsure of their political identity showed a distinct pattern: they were less likely to emphasize the amount of meat consumed and far more

likely to select “I’m not sure” relative to production methods. This suggests that respondents who are uncertain about their political affiliation may also experience uncertainty over why they are concerned about meat’s impact on climate change.

The influence of age stood out in this question, with older adults being exceptionally more likely than young adults to express concern over the types of animals consumed over production methods. As compared to young adults aged 18–24, adults aged 55–64 were twenty times more likely, adults aged 65–74 were fifteen times more likely, and those older than 75 were fourteen times more likely to choose the species-related concern. These large associations suggest a strong generational divide: adults older than 55 who acknowledge meat’s climate impact tend to shift their attention away from production systems and toward the types of animals raised.

Only two specific levels of education shaped concern. Compared with respondents without a high school degree, those with a high school diploma or a 2-year degree were significantly less likely to select species-related concerns or consumption-related concerns relative to production methods. This trend was not significantly consistent across all higher levels of education, limiting its validity in concluding that higher educational attainments may orient respondents toward systemic production issues rather than individual consumption or species choice.

Although urbanicity did not shape most concern types, suburban residents showed higher odds than urban residents of selecting the “I’m not sure” response relative to production methods, suggesting some uncertainty over their concern on the topic of meat’s impact on climate change.

For respondents who did not believe meat has a substantial climate impact, multinomial regression compared all alternative statements to the reference view that meat production can be sustainable with the right practices. Political identity was a particularly strong predictor for Republicans – with findings suggesting that, among those who do not think meat has a substantial climate impact, Republicans were more likely than Democrats with the same view to express broader climate skepticism or to downplay meat’s relevance to climate change. Additionally, respondents identifying with “Other” political affiliations were less likely than Democrats to attribute climate concerns to other sectors, such as energy.

Age also played a significant role. Adults aged 65 and older were significantly more likely than those aged 18–24 to state that meat’s climate impact is overstated or that other sectors are more important. This further adds to the findings that generational differences may shape how respondents justify their views. Education level influenced concerns among participants who do not believe that meat has a substantial impact on climate change. Respondents with higher levels of education are substantially less likely than those without a high school degree to state that climate change is not a priority, relative to the sustainability reference category. This finding suggests that higher levels of education may be associated with higher levels of concern about climate change, supporting previous findings of this association.⁶² Additionally, participants with certain higher levels of education were also less likely to select “I’m not sure”, suggesting that higher educational attainment may promote more defined views, although this trend was not consistent throughout all higher levels of education.

Gender influenced odds of being uncertain about concern. Male respondents were significantly less likely than female respondents to select “I’m not sure”. This suggests that male

participants who were not concerned about the impact of meat on climate change are more certain of their explanation for this belief than female participants.

4. 3. Solutions:

4. 3. 1. Solution Questions:

Results for the solution questions suggest that most Americans are opposed to the government encouraging less meat eating. This aligns with previous literature on Americans' support for meat-specific food policy, which suggests that the majority of Americans would oppose government intervention aimed at reducing emissions from beef production.⁶³ Additionally, eating less meat is often considered a less effective climate solution when compared to other personal strategies such as eating more organic food, driving less, using less energy at home or installing solar panels.⁶⁴ Studies exploring support for food policies beyond meat find that Americans are more likely to support policies that invest in education and research over policies that ban or tax foods.⁶⁵ These findings suggest that most Americans prefer solutions that maintain personal autonomy over government solutions that may increase costs or decrease access to foods. This aligns directly with the most frequently chosen concern about government eat-less-meat initiatives: that it would undermine people's ability to make their own food choices. This finding re-enforces the theme of Americans valuing personal autonomy over their dietary choices.

While our results suggest a broad opposition to a government recommendation to reduce meat consumption to address climate change, we found no single concern appears to drive that opposition. Although the most frequently cited concern emphasized an autonomy in food choice, support for this view was held by fewer than one-third of respondents. Instead, respondents distributed their selections across multiple concern options, suggesting that resistance to a

government-led recommendation reflects a range of underlying motivations rather than a single dominant rationale.

4. 3. 2. Solution Questions, Stratified by Political Affiliation:

The majority of respondents across most political affiliations expressed opposition to a government recommendation to reduce meat consumption to address climate change. Democrats were the only group for whom a slight majority expressed support, although nearly half (48%) also opposed such a recommendation. This aligns with previous findings that global warming is a more important issue for Democrat voters than for Independents and Republican voters, respectively, with global warming ranking as one of the least important voting issues for Republicans.⁶⁰

Across political affiliations, the concern that a government recommendation to eat less meat for climate reasons could undermine people's ability to make their own food choices was either the most frequent (Republicans and "Not sure" politically) or second-most frequent choice (Democrats, Independents, "Other). This finding emphasizes a point of convergence: Americans across political affiliations express at least some concern that a government recommendation to eat less meat for climate change could harm their freedom to make personal dietary decisions. This finding highlights that foundational values to traditional American culture – freedom of choice and personal responsibility⁶⁶ – shape how Americans, across political affiliation, respond to interventions that could affect their dietary choices.

However, there also is a partisan divide on motivations for this resistance. Republicans and those who are "Not sure" of their political affiliation report high levels of concern that such an initiative could undermine people's ability to make their own food choices and that it feels like government overreach. Republicans and "Not sure" participants both have a low proportion

of respondents who expressed concern about this initiative not being focused on systematic change enough and it oversimplifying the complexity of climate change. On the other hand, these two concerns were the top-two most frequently chosen by Democrats and Independents. Thus, while participants across all political affiliations reported concern about maintaining their ability to make personal food choices, Republicans and “Not sure” participants expressed additional concerns that further emphasize their opposition to government overreach, while Democrats and Independents further emphasized their opposition to initiatives that do not recognize the system-level need for solutions and complexity of climate change. Those who identify politically as “Other” stand out in their concerns to a government initiative to eat less meat because their top four concerns are both the top-two reported by Democrats and Independents, and the top-two reported by Republicans and “Not sure” participants.

4. 3. 3. Regression Models for Solution Questions:

The main solution question suggests that political affiliation is the most consistent predictor of opposition to a government recommendation encouraging Americans to eat less meat to address climate change. The solution question shows that, as compared to Democrats, respondents who were “Not sure” of their political affiliation had the highest odds of opposing the government eat-less-meat recommendation, followed by Republicans and then Independents. These associations remained statistically significant after adjustments, underscoring the strength of partisan identity in shaping resistance to government involvement. Importantly, this finding emphasizes that the respondents who are “Not sure” of their political affiliation continued having stronger odds of opposition than Republicans after adjusting for other potential confounders.

Age also played a meaningful role, with older adults demonstrating greater opposition. Adults aged 65–74 had more than twice the odds of young adults (18–24) of opposing the

recommendation. Adults aged 75 and older also showed higher odds of opposing as compared to adults aged 18–24, although the association became statistically significant only after adjustments. Therefore, demographic context may partially mask underlying generational patterns in the crude models. These findings suggest that older adults may be more resistant to government involvement in meat-related climate guidance, even when accounting for political identity and other demographic factors.

Urbanicity showed that suburban residents were more likely than urban residents to oppose the government recommendation, even after adjustment. This suggests that suburban respondents may be more skeptical of government dietary guidance than their urban counterparts. This further adds to the findings of the suburban–urban differences in perceived social responsibility around meat eating, with suburban residents displaying a stronger opposition to government intervention on dietary choices as compared to urban residents.

Across the eight options for concerns about the potential solution, political affiliation was the most consistent predictor of concerns about a government eat-less-meat recommendation. Republicans were more likely than Democrats to be concerned that a government recommendation to eat less meat would undermine people’s ability to make their own food choices, feel like government overreach, and politicize personal food choices. Republicans were less likely than Democrats to express concern that such government intervention would oversimplify the complexity of climate change, be too focused on individual behavior instead of systematic change, or express no concern. These findings remained consistent after adjusting for other demographics. Thus, as compared to Democrats, Republicans are more likely to express a concern, and this concern is more likely to be about maintaining dietary decisions as a personal

choice, and less likely to be about complexity of climate change or ensuring systematic-level change.

Concerns for respondents who were unsure of their political affiliation were only statistically significant for one statement: they were over three times more likely than Democrats to express the concern that a government eat-less-meat initiative would undermine people's ability to make their own food choices. It is significant to note that this is higher than the odds of Republicans, again suggesting that participants who are "not sure" of their political affiliation may be even more concerned than Republicans about maintaining dietary choices as a personal decision. Participants who identify politically as "Other" were more likely than Democrats to express concern about government outreach. Furthermore, Independents, politically unsure respondents and those who identify as "Other" were less likely than Democrats to report not having any of the listed concerns. This suggests that Democrats are more likely than respondents of other political affiliations to not have concerns about a government recommendation to decrease meat consumption for climate change.

Age, education, and urbanicity showed selective, statement-specific associations. Respondents aged 45 and older were significantly less likely than those aged 18–24 to express concern about an eat-less-meat recommendation leading to nutrient deficiencies. Younger adults may therefore be more worried about nutritional risks associated with reducing meat consumption. Importantly, respondents in all age groups above 25 were over three times more likely than young adults to report having no concerns about such government recommendations. The magnitude of the odds ratio increased with adjustments. This suggests that older adults may be more comfortable with government dietary guidance to eat less meat.

Education was a predictor for several concerns. Respondents with higher education attainment were more likely to express a concern (vs not), particularly those concerns involving politicization and systemic critiques. Respondents with a higher level of education were more likely than those without a high school degree to be concerned about a government eat-less-meat recommendation politicizing personal food decisions or being too focused on individual behavior instead of systemic change. This suggests that higher educational attainment may increase awareness of political dynamics surrounding food and climate messaging, and the importance of structural-level change for the topic of climate change. These findings further contribute to the understanding that a higher level of education increases awareness about climate change.⁶²

4. 4. Strengths and Limitations:

This study offers several strengths. It is the first perception-gap analysis focused on public views about connections between meat and to climate change. To the best of our knowledge, this study is also the first survey to jointly examine values-based views, concerns, and preferred solutions on the topic of meat and climate change. The study also benefits from a large sample size, which increases statistical power and allows for more precise subgroup comparisons.

Despite these strengths, limitations should also be considered. The study relied on online data collection, a method widely used in survey research due to its cost-effectiveness, scalability, and rapid fielding time. However, online panels introduce challenges related to rapid-responder bias and sample representativeness. To mitigate rapid-responder bias, the survey remained open across multiple weekdays and weekends and closed only after demographic quotas were met. The study also implemented response-time checks and detection of patterned responding. Participants who completed the survey too quickly or demonstrated low-effort response patterns

were removed. In total, 4,483 participants were excluded due to speed checks, attention checks, quota management, or other data-quality procedures. These steps helped ensure that the analytic sample reflected respondents who engaged meaningfully with the survey items.

The study is also subject to selection bias. The panel recruitment firm, Dynata, offered the survey to individuals who had already joined their participant pool, resulting in a sample that is not truly randomly selected across the US population. Although post-stratification weighting was applied to improve demographic representativeness, weighting cannot fully correct for differences between online panel participants and the broader population. As a result, the findings should be interpreted as reflective of patterns within a large, diverse online sample rather than a perfectly nationally representative one.

5. Conclusion:

Based on a national survey of 2,518 respondents conducted in January 2026, this thesis characterized Americans' values, concerns, and solution preferences that address the impact of meat on climate change. This thesis also explored how those beliefs vary by political affiliation and other sociodemographic variables, and whether and where misperceptions about the other side's beliefs (second-order beliefs) contribute to perceived polarization regarding meat and climate change.

The findings demonstrate that a majority of Americans across partisan lines are united on their ethos of maintaining personal autonomy on their freedom over meat eating. However, the perception gap results indicate that both Democrats and Republicans underestimate how strongly the other party endorsed autonomy-based and expert-skeptical views on this topic. These misperceptions mirror broader patterns of false polarization, indicating inaccurate assumptions rather than substantive disagreement on underlying values. Addressing these misperceptions may

be a critical step for creating a space for productive conversations around climate-related food policies. Further, awareness of this shared autonomy norm is important for food system experts and policy makers; when developing sustainable food systems initiatives, these results suggest that solutions that remove a sense of autonomy over food choices may receive less widespread support.

The findings also indicate that most Americans (including nearly half of Democrats) do not believe meat consumption meaningfully contributes to climate change, and would not support a government recommendation to eat less meat for climate reasons. Given the well-established scientific consensus of the climate impact of industrially produced meat (particularly as compared to plant-based foods), these findings highlight a significant public knowledge gap. This may act as a barrier to building support for environmentally sustainable food system policies. However, results also show substantial cross-partisan support for improving the sustainability of meat production. System-level initiatives inflict less on the sense of losing personal autonomy over meat eating, feeling less like government overreach (a top concern for Republicans and those who identify politically as “Not sure” or “Other”), while also recognizing the complexity of climate change at a structural-level (a top concern for Democrats and Independents). These findings suggest that policies that address meat production sustainability at a system-level are more likely to receive broad public support in the United States.

Demographic factors also shaped attitudes, but with less consistent trends as compared to political affiliation. Age produced clear generational differences, with older adults being more likely to emphasize species-related concerns and oppose government dietary recommendations, while younger adults focus more on production practices and nutritional considerations.

Education played an asymmetric role: it did not meaningfully shape values-based views but strongly predicted how respondents evaluate solutions and justify their concerns. Urbanicity displayed only limited differences between suburban and urban residents, while the expected rural–urban divide did not show up.

Future research should aim to better understand what Americans would be willing to sacrifice to support the more sustainable meat production practices that our findings indicate broad support for. Additionally, future research could also explore potential interventions that may encourage Americans to make dietary choices with environmental considerations in mind, and better understand what it would take for Americans to be more willing to decrease their volume of meat consumption. Additionally, more research is needed to better understand the unique values and priorities of Americans who identify as “Not sure” and those who reside in suburban neighborhoods.

This thesis highlights both areas of common ground and division on the “meat-climate” nexus among Americans. These novel results may inform communication strategies aimed at reducing affective polarization in a polarized era, and thus contribute to the promotion of civic health within food system issues.

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