

Commerce and Campaigns: The Local Roots of Globalization Messaging in US Presidential Speeches

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Abstract

Issues like trade are often considered too technical and low salience to appear in national debates, raising questions over the increasing supply of trade messages in campaign speeches. We develop a theoretical framework that explains where and when elites supply trade messages. Incumbent-party candidates avoid trade messages, even where doing so would win local support, while challengers use trade messages to strategically inform electorally competitive regions of trade’s local impacts. In aggregate, a minority of geographies are supplied one-sided trade information campaigns. Using a within-candidate design, we find empirical support using an original dataset covering all campaign rally speeches by presidential candidates from 2008 to 2024, which we geocode and analyze with semi-supervised text methods to quantify where presidential campaigns emphasize trade relative to other issues. Our results are robust to exogenous sources of local interests, pre-trends, and placebo tests using immigration messages. The findings clarify the supply-side origins of the globalization backlash during the understudied campaign stage.

Keywords— Campaign speeches, trade, economic geography, text analysis

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1 Introduction

Ohio has lost nearly 1 in 3 manufacturing jobs since NAFTA, and nearly 1 in 4 manufacturing jobs since China entered the World Trade Organization.”

—Donald J. Trump, campaign rally, Ohio, Sept. 1, 2016

One million jobs have been lost because of NAFTA, including nearly 50,000 jobs here in Ohio.”

—Barack Obama, campaign rally, Ohio, Feb. 24, 2008

“We’ve lost 600,000 manufacturing jobs... we’re going to make trade work for us.”

—Mitt Romney, campaign rally, Ohio, Oct. 12, 2012

For decades, it was commonly assumed that the politics of trade was “conducted in the shadows” by special interest groups (Frieden, 2022), and that voters’ trade policy interests were too diffuse (Grossman and Helpman, 1994) or too uninformed (Guisinger, 2009) to have much influence. More recently, however, trade has emerged from the shadows, becoming a salient issue discussed by left- and right-party candidates on the campaign trail. This paper empirically evaluates the supply of trade messages in US presidential campaign speeches.

Theories in international political economy provide a possible explanation rooted in bottom-up democratic responsiveness. Applied to the trade-content of campaign speeches, this logic might predict that elites supply trade messages to satisfy growing demands among trade’s economic losers. However, these arguments typically assume that voters have economically-informed policy preferences, and that these preferences influence their choice at the polls. A scarcity of evidence for either assumption casts doubt over this explanation. Guisinger (2009) finds that voters with clear material interests do not hold politicians accountable on trade. Consistent with this, there is little evidence that voters understand who wins or loses from trade policy (Rho and Tomz, 2017). This raises a theoretical puzzle: if voters are too poorly informed about their material interests, and not likely to vote based on trade, then why would politicians expend valuable campaign resources being responsive to material interests? Indeed, alternative top-down theories suggest that elites would instead ignore material interests and use issues like trade to capitalize on out-group anxieties (Inglehart and Norris, 2016; Mutz, 2018; Guisinger, 2017; Mansfield, Mutz and Brackbill,

2019; Baccini and Weymouth, 2021).

We provide a general theoretical framework to explain conditions under which trade messages are responsive to voters' material interests despite low-information and low-salience. We highlight two distinct functions of trade speeches. First, trade messages provide policy-relevant information to voters who we assume are poorly informed about their personal material interests. Second, trade messages increase the national salience of trade relative to other issues. Incorporating these functions into a multi-region Downsian framework, the theory predicts that incumbent party candidates rarely message on trade anywhere they campaign. Counterintuitively, incumbents ignore trade even when campaigning in places where increased messaging would win local votes. Challenger party candidates, by contrast, strategically inform voters of their *latent* material interests, especially in electorally valuable regions that would plausibly switch their partisan allegiance after becoming informed. The core intuition comes from the way trade creates winners and losers within parties, incentivizing incumbents to keep trade a low-salience and low-information issue that would otherwise geographically divide its national coalition. The result is that trade messages are only supplied by challengers and highly targeted toward places with strong latent interests that are electorally valuable.

The quoted speeches in the beginning illustrate the theory: Obama, Romney, and Trump were, during the time of their speeches, challenger party candidates whose trade messages helped inform electorally important Ohio voters about how trade policies have significantly affected them. We expect that challengers from both parties systematically use trade messages in this way, that the theory applies similarly to regions that win from trade (e.g., agricultural and service hubs), and that incumbents systematically under-supply trade messages in all regions, winner or loser.

Testing the theory requires a new dataset of geo-coded speeches. We collected the universe of official campaign rally speeches delivered by primary candidates, presidential candidates, vice presidential candidates, former presidents, and spouses of these candidates for the 2008 to 2024 US presidential elections, using data from the American Presidency Project online archives (Woolley, 1999).¹ For each speech, we identify the exact date, location, and speaker, and then process the

¹These speeches do not include impromptu, or unplanned, speeches that candidates might give while on the campaign trail.

entire transcript. We apply a recently developed approach in semi-supervised text analysis, namely keyword-assisted text modeling (Eshima, Imai and Sasaki, 2024) to identify the proportion of each speech that discusses the topic of trade policy and aggregate it to derive a measure of trade emphasis at the commuting zone (CZ)-year-party level.

Our identification strategy combines a within-candidate panel design with instrumental variables that measure shocks to regions’ latent economic interests. We first show descriptive evidence using historical CZ specialization in import-competing and export-competitive industries. Challenger party candidates uniquely increase trade messaging in both winning and losing regions that are electorally competitive, consistent with our prediction that challenger party candidates have incentives to target incumbents’ national coalition from both sides. We find substantively similar effects using well-established instrumental variables that capture exogenous CZ variation in Chinese import competition (Autor, Dorn and Hanson, 2013; Goldsmith-Pinkham, Sorkin and Swift, 2020). However, the findings also hold when using an alternative instrumental variable that captures CZ variation in exposure to automation from industrial robotics (Acemoglu and Restrepo, 2020). While some automation is endogenous to trade, this result suggests that elites may target trade speeches toward declining regions more generally.

These results are robust to a battery of robustness checks. We find no evidence of an alternative cultural mechanism. Replicating the analysis using immigration speeches, we find no evidence that elites intend to stoke anti-foreigner anxieties within trade-exposed communities. In a broader analysis of 40 topics, trade and compensation emerge as unique topics that elites supply within shocked areas. We establish support for our design’s core identification assumptions with pre-trend tests, and also show that campaign selection into certain CZs does not drive our findings. Finally, our results are insensitive to specific candidates like Donald Trump, establishing evidence for the generalizability of the theory.

This paper contributes to theories of democratic responsiveness in international political economy. The dominant paradigm, called Open Economy Politics (OEP), postulates a long causal chain of policy responsiveness that flows unidirectionally from voter interests aggregated through institutions to policymakers who negotiate international trade policy (Lake, 2009; Rickard, 2025). The “hard core” of OEP is the use of economic theory to deduce actors’ material interests over

policies that govern the global economy. It helps explain empirical variation in individual policy preferences, election outcomes, policy choices, and the structure of international agreements.² An understudied link in this chain is the inception of policy platforms during the crucial election campaign stage. We argue that geographic variation in the trade content of campaign speeches is best predicted by economic theory and also helps clarify important debates over the origins of globalization policy.

Specifically, it is not clear why politicians would be responsive to voters' economic interests in the way OEP hypothesizes. These arguments commonly assume that voters understand their economic positions within the global economy, form policy preferences accordingly, and vote for the candidate with the closest policy platform. However, surveys reveal weak evidence of self-interested preferences, policy knowledge, and willingness to hold representatives accountable (e.g., [Guisinger 2009](#); [Rho and Tomz 2017](#)), calling into question the validity of democratic responsiveness and the OEP perspective. While data on regional vote shares appear more consistent with OEP theories, with trade exposed areas voting for populist, extreme, or anti-globalization parties ([Broz, Frieden and Weymouth, 2021](#); [Colantone and Stanig, 2018a](#); [Flaherty, 2023](#); [Jensen, Quinn and Weymouth, 2017](#)), the multidimensionality of vote choice make it challenging to interpret these outcomes as driven by economic theories versus alternative cultural backlashes, or some combination ([Baccini and Weymouth, 2021](#)). We argue that the issue content of speech data helps clarify the importance of economic theory in explaining the globalization backlash. The analysis reveals that, under certain conditions, widespread low information is less problematic for OEP-style responsiveness if institutions create incentives for the supply side to strategically use speeches to inform economically exposed voters.

Finally, our dataset contributes to a nascent literature using real-world speeches by leaders to understand the supply-side of globalization politics. Research on elite “place-based campaigning” has been hampered by data and measurement challenges ([Bischof and Kurer, 2023](#)). [Hunter and Walter \(2025\)](#) collect a cross-national dataset of parliamentary speeches on the topic of international organizations (IOs), showing that ideologically extreme parliamentarians are most likely to use negative language in their IO communications. [González-Rostani, Incio and Lezama \(2025\)](#)

²For in-depth reviews of this literature, see [Hafner-Burton et al. \(2017\)](#); [Kuo and Naoi \(2015\)](#); [Margalit \(2019\)](#); [Rickard \(2025\)](#).

analyze tweets by politicians in Chile and Peru to explore the effects of Venezuelan migrant shocks on migration rhetoric. They find that members of parliament are not responsive to voters' experiences with immigration. These datasets ease the investigation of under-explored questions in international relations about democratic responsiveness and how elites aggregate public interests at the national level (De Vries, Hobolt and Walter, 2021). We conclude by suggesting future directions and applications of our geo-located speech data.

2 Campaign Messaging, Local Context, and Party Competition

This paper builds directly from the Open Economy Politics tradition that derives actors' policy interests from their relative labor market position in the global economy. Neo-classical economic theories were originally used to infer political cleavages from actors' ownership of broad factors of production and the comparative advantage of their industries (Frieden, 1994; Rogowski, 1989; Lake, 2009). The framework more recently incorporates more realistic economic models that capture policy cleavages created by occupations (Owen and Johnston, 2017) and firm-level productivity (Kim, 2017; Osgood, 2017). Our theory most directly builds from OEP research using economic geography models that derive a region's policy interests from its local production profile (e.g., Baccini and Weymouth 2021; Bisbee and Rosendorff 2025; Broz, Frieden and Weymouth 2021; Flaherty 2023; Kim and Pelc 2026; Milner 2021; Retzl 2025). Applications of economic geography typically focus on evaluating whether measures of local trade exposure, such as regional variation in import competition from China, predict policy preferences and vote shares.

Our application of economic geography differs in two important ways. First, while we have learned much about the consequences of concentrated trade exposure on election outcomes, we apply the framework to the understudied supply side of politics, specifically, to campaign speech behavior. Feigenbaum and Hall (2015) provide an important exception, showing that incumbents in the U.S. House are responsive to local conditions (measured using the China trade shock) in terms of their roll call votes on trade bills, and that this strategic behavior allows them to avoid electoral punishment. This follows the logic of Bailey (2001) who argues that politicians match trade policy to their constituents' interests in an effort to preemptively thwart challengers.³ However,

³This type of proactive responsiveness is also argued more generally by Stimson, Mackuen and Erikson (1995).

it is unclear whether these insights from Congressional districts apply to national campaigns that must win more than one region. In our national context, we show special conditions under which campaign speeches are responsive to local trade interests.

Second, our application of economic geography does not adopt the standard OEP assumption that voters understand their local trade interests. Rather, we assume that voters may experience local booms and busts, but are ignorant of the extent to which trade policy can explain those outcomes. This allows us to integrate economic geography with significant empirical evidence that calls into question standard OEP assumptions about voters. [Guisinger \(2009\)](#) uses surveys to show that trade lags significantly behind all other issues in terms of voter knowledge of its impacts, knowledge of representatives' trade positions, and willingness to punish incumbents based on their roll-call votes on trade bills. Furthermore, [Rho and Tomz \(2017\)](#) use experiments to show that voters are ignorant of complicated issues like trade, only adopting self-interested policy preferences when experimentally supplied with information. By incorporating these insights, we provide a more behaviorally realistic theory of economic geography. Doing so reveals an important finding that elites, under certain conditions, use campaign messages to strategically inform ignorant voters of their region's latent trade interests.

This paper also builds on a broader literature on elite messaging. A review of the empirical evidence concludes that “much of the literature on public opinion and foreign policy recognizes that, on specific issues, the public takes cues from elites” ([Guisinger and Saunders, 2017](#), p. 426). However, the importance of elite messaging appears conditional on two forces that we explore in the realm of trade policy: local context and party competition. Exploring context, [Mehlhoff et al. \(2024\)](#) show that locally salient shocks make residents highly resistant to top-down messaging that contradicts voters' interests. In particular, fear of COVID-19 (which they find is significantly correlated with county deaths per capita) significantly increases both information-seeking behaviors and resistance to partisan cues that contradict their interests. Other work shows that politicians are held electorally accountable for local economic conditions ([Ebeid and Rodden, 2006](#); [de Benedictis-Kessner and Warshaw, 2020](#)). In the realm of trade policy, [Ballard-Rosa, Goldstein and Rudra \(2024\)](#) find that local context, defined in terms of regional economic opportunities, significantly moderates the impact of elite anti-trade messaging on trade policy preferences. They find that

elite messaging is most effective at changing trade attitudes among economically vulnerable “meritocrats,” even if that vulnerability is not directly linked to international trade.⁴ We identify when and where local economic conditions constrain campaigns’ trade messages, showing asymmetric responsiveness: challengers target exposed swing regions with informational campaigns, whereas incumbents stay strategically silent even where local conditions would favor such appeals.

Elite influence is also conditional on the extent of competition between parties for votes. Considering the issue of European economic cooperation, [De Vries, Hobolt and Walter \(2021\)](#) argue that political entrepreneurs can raise the salience of international cooperation to compete for discontented voters. On trade, [Hiscox \(2006\)](#) experimentally shows that competing messages over trade policy significantly moderate the impact of framing effects. This is consistent with a broader literature in American Politics showing that while elites can manipulate voters in the absence of competition, two-sided information competition negates these effects ([Druckman, 2004](#); [Kalla and Broockman, 2018](#); [Chong and Druckman, 2007, 2013](#)). Moving beyond experiments, we use geocoded presidential speeches to show that party competition conditions the supply of trade rhetoric: challengers amplify trade messages in contested regions while incumbents suppress them.

3 A Theory of Campaign Responsiveness Over Trade

3.1 Set-up

To stylistically represent our empirical setting, consider a model country represented by Figure 1(a). In this pre-trade autarkic economy, there are two distinct geographies r , or districts, divided vertically along the dotted line. They have distinct cultural policy preferences x_r . The region left of the dotted line is culturally progressive ($x_r = P$) while the region right of the dotted line is mostly conservative ($x_r = K$), with a small minority that leaned progressive in the prior election. Two candidates $j \in I, C$ electorally compete over these regions where I belongs to the incumbent party and C belongs to the challenger party. For simplicity, assume the incumbent currently belongs to the progressive left party. The incumbent, by definition, won the prior election on culture and thus benefits from some small incumbency advantage $\delta > 0$ that determines how many of the

⁴They define anxious meritocrats as those who: (i) believe that the US economic rewards hard work, and (ii) worry about their family’s economic opportunities.

conservative region's voters switched to supporting the progressive incumbent.

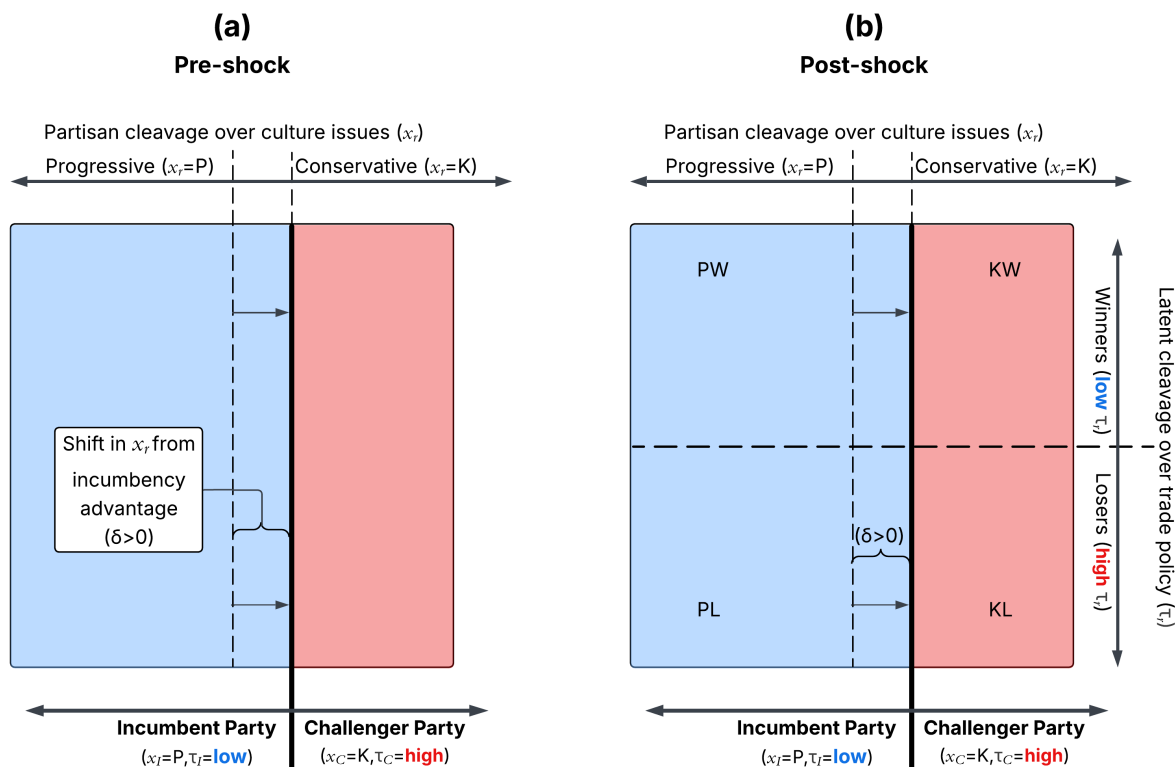


Figure 1: Stylized Setup of Policy Cleavages and Party Divisions

Notes: Dotted lines denote the geographic borders of regions. Solid lines denote the partisan division between I and C . Panel (a) is a pre-shock autarkic economy while panel (b) is an open economy with new geographic winners and losers to trade.

Consider an external trade shock that creates economic winners and losers. This shock does not respect cultural divisions, creating an economic cleavage within both partisan camps. The resulting political geography now looks like Figure 1(b). There are now four distinct regions with a new latent cleavage over trade policy τ_r represented by a horizontal dotted line. On the north side of this dotted line are geographic winners who would benefit from a low tariff that increases exports (low τ_r) while the south side contains regions that are geographic losers who would benefit from tariff protections (high τ_r).

These four regions have intuitive analogues in the United States. PW is progressive and wins from free trade, which might represent left-leaning cities like San Francisco, Houston, and New York City that specialize in export-competitive services. KW is conservative and also

wins from free trade, which includes right-leaning regions in the Midwest that specialize in the export of wheat and soybeans. Among the geographic losers, *PL* would represent historically left-leaning industrial areas like Detroit that host import-competing manufacturing industries while *KL* represents conservative rural areas that lack globally competitive industries and lose population to the cities.

This new trade policy cleavage is unlike culture in that it is a latent cleavage. For example, voters on the south side may observe that their economy is suddenly doing worse, but they lack the policy information to link those outcomes to tariffs. Thus, despite the economic shock, a politically-active cleavage over trade policy does not automatically follow from a shock. Voters also require policy information to link their policy *attitudes*, which we can call $\hat{\tau}_r$, to their economic ideal point τ_r that follow from the distributional impacts of trade shocks. Compounding the problem is that, even if attitudes do become economically rational ($\hat{\tau}_r = \tau_r$), preferences may not impact vote choices if trade remains a low salience issue relative to culture. This is because salience defines how much relative weight an issue plays in vote choice.

These assumptions about issue information and salience capture well-cited findings in the survey literature on trade preferences. Voters are uninformed about how trade affects them, know very little about it relative to other issues, and rarely vote on the basis of trade (i.e., low salience) (Guisinger, 2009; Rho and Tomz, 2017). In the language of Carmines and Stimson (1980), this makes trade a “hard issue” that is non-partisan, technical, and low salience in contrast to “easy issues” like culture that are already partisan coded and highly salient.

Voter utility function: For concreteness, we can explicitly define a voter utility function that reflects how each region might learn about trade affects their local economy and how much weight to give that issue in vote choices. Following Downs (1957), voter utility is a salience-weighted quadratic loss in a two-dimensional issue space:

$$U_r(j) = -\beta(\tau_j - \hat{\tau}_r)^2 - (1 - \beta)\left[(x_j - x_r)^2 - \mathbf{1}\{j = I\}\delta\right]. \quad (1)$$

This function captures the idea that voters care about both culture and perceived trade policy, and which issue dominates vote choice is determined by the national salience of trade relative to

culture $\beta \in (0, 1)$. Like in Figure 1, $\delta > 0$ reflects the incumbent’s advantage in a race purely run on the non-trade partisan issue. Candidates’ policy platforms over trade τ_j and culture x_j are considered fixed since our paper focuses on equilibrium trade messaging strategies.⁵ Candidates’ national trade platforms equal $\tau_j \in [0, 1]$ where 0 represents a low tariff rate (free-trade policy) while 1 represents a high tariff (protectionist policy).

Effects of campaign messages on trade: With fixed policy platforms, candidates give speeches throughout the country to try and attract votes. When crafting their message in each region, they must decide over the course of their campaigns what share of their local speeches to dedicate to the issue of trade relative to culture. Call this equilibrium object $s_{jr} \in [0, 1]$. Increases in the trade share of messaging s_{jr} has two distinct effects on voter utility $U_r(j)$: an localized informational effect and a national salience effect.

The local information effect of campaign trade messages: Informational provision represents a theoretically established function of campaign speeches (Lupia and McCubbins, 1998) with significant empirical evidence (Freedman, Franz and Goldstein, 2004). Voters learn from campaign messages what issues are relevant to their material welfare. On trade, candidate Ross Perot famously used his speeches to inform voters of a “giant sucking sound” of jobs leaving to Mexico as a result of his opponents’ trade policies. When campaigning in manufacturing regions in Ohio, Barack Obama in 2008, Mitt Romney in 2012, and Donald Trump in 2016, all dedicated large portions of their local messaging to information on the localized impacts of trade policies on employment outcomes, often citing specific economic statistics and clarifying particular trade policy mechanisms. We argue that the first impact of this type of localized messaging is to move the target audience’s perceived trade preference $\hat{\tau}_r$ in the direction of their economic ideal point τ_r . Formally,

$$\hat{\tau}_r = \Psi_r \tau_r + (1 - \Psi_r) \tau_r^0, \tag{2}$$

where τ_r^0 is a baseline prior that may reflect partisan biases, out-group anxieties, or sociotropic perceptions about how trade impacts the country as a whole (Mansfield and Mutz, 2009). The

⁵This simplifying assumption can be justified by many forces that make policy positions sticky: incumbency policy records, donor coalitions, party discipline, primaries, and international organizations.

weight Ψ_r reflects the amount that voters are persuaded by messages about trade’s local economic impacts relative to their biased prior. This persuasion weight increases in the local trade messaging intensity from both candidates such that $\frac{\partial \Psi_r}{\partial s_{jr}} > 0$, thereby allowing economic shocks to have a larger impact on vote choices as messaging increases.

An important assumption here is that the information effect is localized. This reflects the often-cited findings that informational persuasion campaigns are generally ineffective without intensive localized campaign contact, which reflects our speech data (see a review of the persuasion literature by [Kalla and Broockman \(2018\)](#)). We also assume that trade messages push voters in the direction of linking trade to some observable local outcome. To avoid making too strong assumptions about bias in candidate messaging, we assume that ideal points τ_r are simply a function of *any* local economic shock—from trade, automation, or otherwise—and that trade messaging simply induces targeted voters to update in the direction of perceiving a *plausible* link between that locally observable outcome and trade policy. Consequently, campaign messages could potentially mislead audiences to perceive a link between a local economic decline and trade policy even if the true contribution of trade is small or unknown to all actors.

The national salience effect of campaign trade messages: Thanks to the nationalization of media, local trade messages s_{jr} can spillover to other regions. However, in the absence of intensive face-to-face persuasion, this mechanism operates through national trade salience β in equation 1. National salience weight β regulates which issue dominates when voters hit the polls. A high β means that voters increase the relative weight they put on $(\tau_j - \hat{\tau}_r)^2$ in their vote choice. We assume that any trade messages given by any candidate in any location increases trade salience nationally such that $\frac{\partial \beta}{\partial s_{jr}} > 0$. This mechanism is consistent with the agenda-setting finding that repeated campaign exposure to an issue raises its weight in voters’ electoral calculus ([Iyengar and Kinder, 1987](#); [Druckman, 2004](#)), and with [Vavreck \(2009\)](#)’s argument that candidates strategically amplify issues on which prevailing conditions favor their platform.

Vote choice: Define Δ_r as the utility difference between candidates $U_r(C) - U_r(I)$:

$$\Delta_r = (1 - \beta) \left[(x_I - x_r)^2 - (x_C - x_r)^2 - \delta \right] + \beta \left[(\tau_I - \hat{\tau}_r)^2 - (\tau_C - \hat{\tau}_r)^2 \right]. \quad (3)$$

Region r votes for the challenger C iff $\Delta_r + \varepsilon_r \geq 0$. The term ε_r is a region-specific election uncertainty shock with logistic CDF F .

Candidate utility: Candidates choose trade messages to maximize expected vote shares minus campaign costs. Trade messaging campaign costs are assumed to be an increasing function of s_{jr} , reflecting two possible costs. First, information that is meant to persuade voters of their local τ_r requires candidates to reallocate valuable campaign resources to learn and provide information about trade’s local impacts, and often credibly link those impacts to their competitors. Second, candidates face an opportunity cost in the form of resources that could have been spent more cheaply by messaging on “easy” issues that are already partisan activated and thus do not require learning in order to vote one’s ideal point (Carmines and Stimson, 1980). Thus, campaigns forgo a relatively efficient messaging strategy focused on partisan issues in order to persuade voters to support them on “hard” issues like trade.

3.2 Graphical Analysis

From this stylized political setup, we ask: under what conditions do campaigns strategically increase trade messaging, and which geographies do they target? Our headline result is depicted stylistically in Figure 2. Trade shocks to τ_r that create economic winners and losers induce challengers to asymmetrically increase trade messages, and spatially concentrate those messages in areas that are both electorally contestable and aligned with the challenger’s trade platform. However, incumbents remain strategically silent on trade in order to keep the election focused on issues that they are strong on and unite their coalition. This result holds for both protectionist challengers (panel a) and free-trade challengers (panel b). In either case, a majority of voters, both winners and losers, receive little campaign information about how trade affects their local welfare. We break down this result in terms of the two effects of messaging: local information persuasion and national salience.

The local information mechanism: We focus for now on panel a of Figure 2. Increases in external trade shocks, which move latent τ_r downward in PW and KW, and upward in PL and KL, increase candidates’ incentive to message about trade s_{jr} through the local information mechanism. The protectionist C candidate has an informational incentive to increase messaging in trade losing

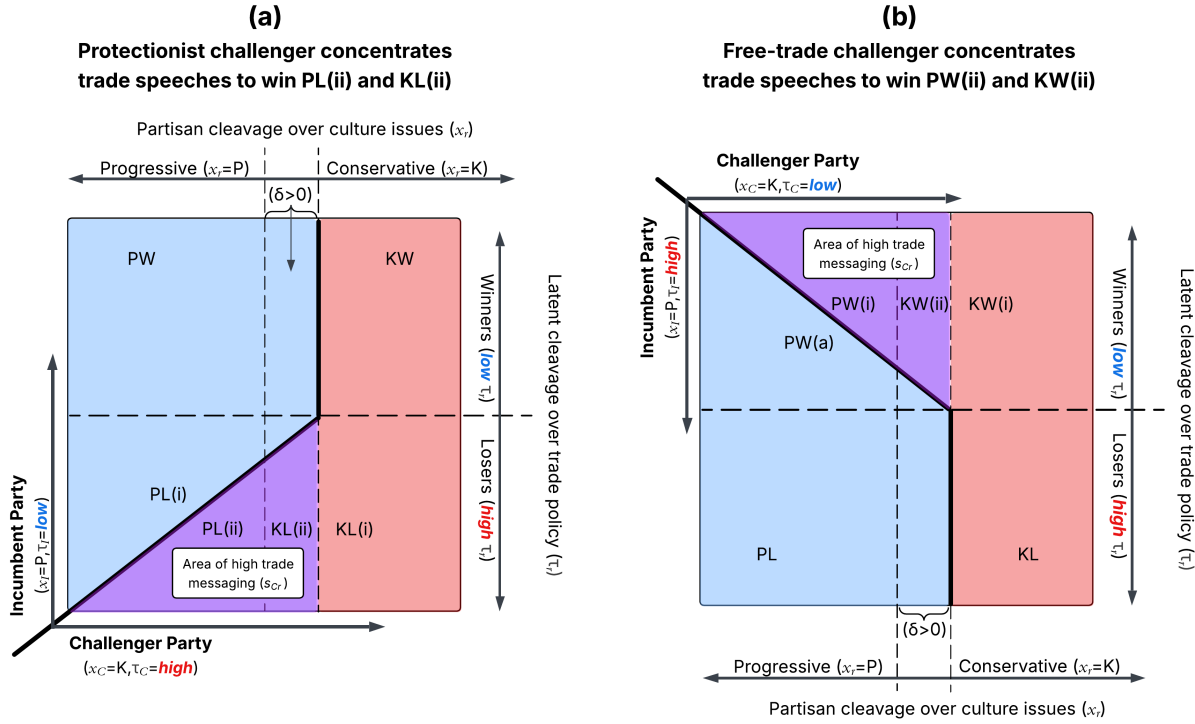


Figure 2: Stylized Equilibrium Locations of Trade Speech

areas. In the conservative stronghold KL, informational messaging accomplishes two goals: first, it strengthens support among those already aligned on culture (shown in area KL(i)); and second, it helps win back those KL residents who switched progressive due to the incumbent's δ advantage (shown in area KL(ii)). In PL, information persuasion creates a wedge among these cross-pressured voters. In response to C 's messaging, some share of PL, labeled PL(i) decide to still vote for I despite trade whereas some other share, PL(ii), are successfully persuaded by C 's messaging to switch votes. This incentive in PL(ii) is similar to the Republican strategy in 2016 to peel away traditionally Democratic voters in manufacturing states.

Pro-trade I faces the opposite informational incentive to increase messaging in trade winning areas. In PW, informing residents that local economic growth is due to, or enhanced by, their pro-trade platform increases I 's already significant culture advantage. In KW, I has an incentive to convince some conservatives to switch their vote on the basis of I 's more favorable export policies. This mirrors the incentives Democratic candidates face after 2016 to appeal to Republican voters in soybean and corn exporting regions hurt by Republican protectionism. However, despite I 's

persuasion incentive in winning regions, they strategically remain silent on trade. The reason is due to the second effect of messaging.

The national salience mechanism: The second effect of trade messages increases the national salience of trade in the election. Since the incumbent has an advantage on culture, and because their winning coalition contains both winners and losers, any increase in the salience of trade reduces their incumbency advantage. Thus, the local persuasion advantage they gain in PW and KW is offset by losses from pushing voters in PL further away through the salience mechanism. Using the 2016 example, the incumbent Democrats could have persuaded some agricultural exporting regions to switch on the bases on trade, but this would raise the national salience of trade across all regions, including industrial regions in PL where the Democrats are weak on trade and the challenger is actively persuading them toward tariffs. To avoid playing into the C 's hand, I prefers to minimize the importance of trade at the polls. In other words, the cross-region salience spillovers constrain I 's ability to capitalize on positive trade shocks. This explains why incumbents remain strategically silent on trade.

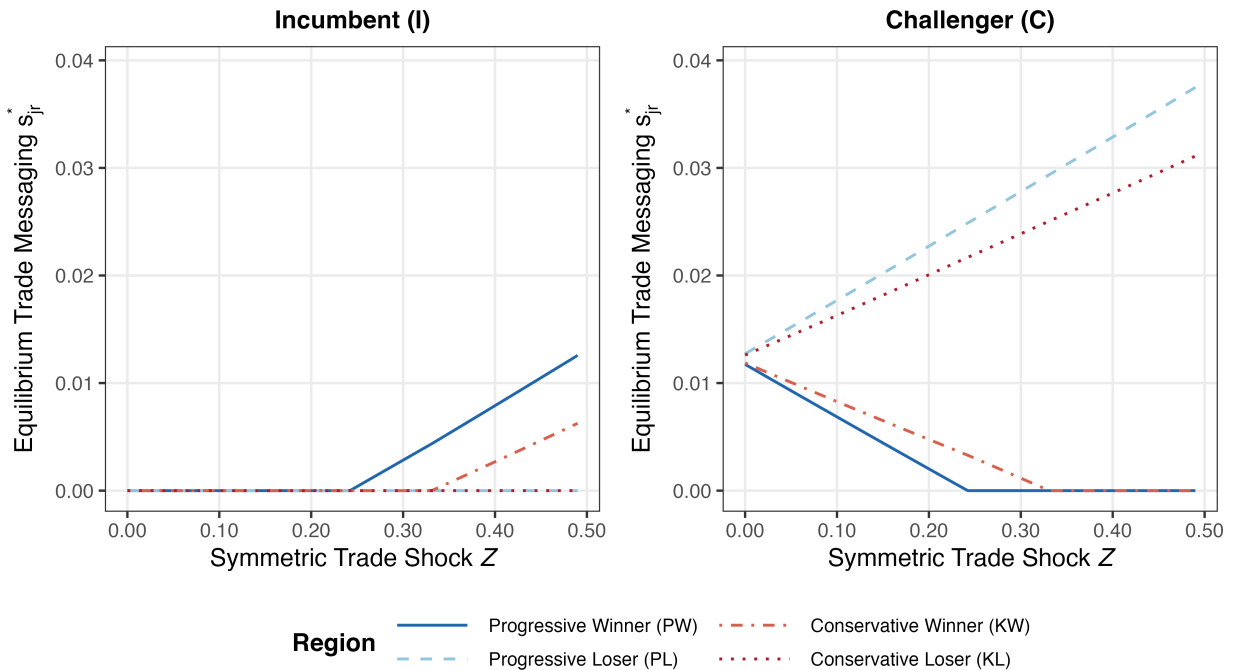
Crucially, the salience mechanism plays to the advantage of challengers, reinforcing their persuasion incentive. Since C is at a disadvantage on culture, salience directly benefits. Graphically, in Figure 1(b), C cannot win on culture alone because the area to the right of the culture cleavage plus δ is less than a majority. The stronger the incumbent becomes, measured by δ , the greater the salience benefit to the challenger to message. Since the salience mechanism is national, the salience incentive is equally positive in all regions, which reveals that geographic variation primarily reflects the persuasion mechanism. Returning to the 2016 example, the model suggests that the Democrats enjoyed a significant advantage over existing issues, thereby incentivizing a weak challenger to gamble on a “hard” low information issue like trade in a wedge strategy to break up key geographies like Michigan and Pennsylvania.

3.3 Equilibrium messaging strategies and propositions:

Figure 3 fully formalizes the intuition behind these stylized figures, and plots the equilibrium locations of trade messaging in response to varying levels of trade shocks. Details about the model are located in Appendix Section A. The formal results are consistent with our graphical intuition

that trade shocks asymmetrically induce trade messaging by challengers, and that challengers concentrate their messages in losing regions, especially cross-pressured PL. In contrast, I remains silent until the trade shock is sufficiently large, after which I combats C 's increasingly effective wedge strategy by raising trade's salience in pro-trade areas—the point the political system becomes realigned over trade policy and away from culture.

$$\tau_W = 0.49 - Z \text{ (winners)} \mid \tau_L = 0.51 + Z \text{ (losers)} \mid Z \in [0, 0.49]$$



I: anti-trade ($\tau_I = 0$), C: pro-trade ($\tau_C = 1$).
 $\delta = 0.05$, $\beta_0 = 0.25$, $\kappa = 1$, $\sigma = 1$.

Figure 3: Equilibrium Trade Messaging Responses to Symmetric Trade Shocks

Notes: equilibrium trade messages s_{jr}^* are computed via fixed point iteration using F.O.C.'s from Section A.

This leads to the following propositions that we test with our speech data:

Proposition 1: symmetric shocks to τ_r increase trade messaging s_{jr} when $j = C$.

Proposition 2: the positive effect of τ_r on s_{Cr} is larger in cross-pressured regions.

We clarify that a shock to τ_r may arise from any economic shock that creates geographic winners and losers that cut across pre-existing political cleavages. While the modeling focused on a trade shock, the same strategic behavior would arise from an automation shock that also creates

economic divisions between PW and KW, on the one side, and PL and KL on the other. This does, however, alter the substantive interpretation of the information mechanism, since candidates in this case would be persuading audiences that losses or gains from automation are plausibly linked to trade policy, with losers benefiting from tariff protections and winners benefiting from export promotion. This also means that the proposition does not apply to ordinary business cycle economic shocks, like a national recession that does not cut across partisan cleavages.

These propositions apply had the trade platformed switched such that I was protectionist and C pro-trade, as in Figure 2(b). What changes is that the location of C 's messaging now concentrates in PW instead of PL since that is where I 's voters are aligned with C 's trade platform. This clarifies that proposition 2 applies to positive and negative economic shocks, with protectionist challengers focusing their messaging on cross-pressured PL and free-trade challengers focusing their messaging on cross-pressured PW. Each strategy has the same logic since both split I 's coalition, but in separate directions. We test this empirically by showing how a wide variety of challengers respond to both positive and negative shocks. We interpret cross-pressured regions to be electorally competitive swing districts.

4 Data and Descriptive Analysis

4.1 Measuring trade emphasis in US presidential campaign speeches

To examine how presidential candidates incorporate trade and immigration into their campaign rhetoric, we collect campaign speeches and remarks using the data from the American Presidency Project (Woolley, 1999). Previous text-as-data studies have looked at temporal patterns in strategic communication, using related data from this source (Dai and Kustov, 2022; Arthur and Woods, 2013) or similar historical data (Bonikowski and Gidron, 2016). Other studies use campaign speech data to focus on a single election (Finity, Garg and McGaw, 2021; Schroedel et al., 2013), or to compare across candidates (Enke, 2020).

However, the geographic dimension of presidential campaign speeches has often been neglected. We collect all documents that the Project categorized as Campaign Remarks and Rallies, which total 4,611 entries as of September 6, 2025. We then filter this set to retain only those that

were delivered by Republican and Democratic presidential candidates, vice presidential candidates, primary candidates, former presidents, and their spouses, across four election cycles from 2008 to 2024. A speech is assigned to an election cycle if it meets two criteria: (1) it was delivered between the previous cycle’s and the current cycle’s election days, and (2) it does not directly address the outcome of that prior election. Speeches that acknowledge or contest electoral results are considered part of the preceding cycle. After applying these filters, our final corpus consists of 1,922 campaign speeches. The first speech was made on November 7, 2005, and the most recent was delivered on November 6, 2024.

Next, we geolocate each speech. Using an entity recognition procedure enabled by the Python library `spaCy` and its R wrapper `spacyR`, we extract location information from speech titles and accompanying notes provided by the American Presidency Project. These location names are matched to specific cities and geographic coordinates using the open-source GeoNames database. Each identified city is then mapped to its corresponding commuting zone using the USDA’s city-to-commuting-zone crosswalk ([U.S. Department of Agriculture](#)). To ensure accuracy, we verify that the matched geographic coordinates fall within the boundaries of the assigned commuting zone. Speeches delivered virtually, or broadcast nationally via radio or television, are excluded from geolocation.

To code the topical content of speeches, we implement the keyword-assisted topic models (keyATM) outlined by [Eshima, Imai and Sasaki \(2024\)](#). keyATM is a semi-supervised topic model that improves upon traditional unsupervised models (e.g., [Blei, Ng and Jordan, 2003](#); [Roberts et al., 2014](#)) by allowing researchers to specify topics of interest prior to model fitting. Researchers do so by supplying the model with a set of topic labels and a small number of user-defined keywords associated with each label. Additionally, researchers also specify the number of topics k , similar to other topic models in the literature.

Each keyword-defined topic is modeled as a mixture of two distributions: one restricted to the specified keywords, and one covering the full vocabulary. This structure encourages the model to prioritize keywords *a priori*, while allowing it to learn from the data the extent to which those keywords characterize the topic.

Overall, this approach enables researchers to directly measure the prevalence of known topics while still allowing for the discovery of additional, unanticipated themes. As its authors argue, keyATM is particularly well-suited for applications where the goal is to measure specific topics—precisely the aim of our study. Moreover, it adopts a “hands-on-the-table” approach: topic definitions are specified before model fitting, rather than being inferred post hoc from estimated topic proportions and topic keywords, as in conventional structural topic models.

For our analysis, we begin by identifying keywords corresponding to trade. We do the same for immigration as a placebo issue that we describe in more detail in the analysis. To identify keywords, we randomly select four speeches per party, per election cycle, and per four major regions: Midwest, Northeast, South, and West.⁶ This sampling procedure helps ensure that the identified keywords are not unique to a specific time period, geography, or party. We assign two research assistants to independently read these speeches, identify paragraphs where the candidate discusses either topic, and highlight up to ten frequently used keywords that are mentioned repeatedly in the paragraphs associated with each topic. We then take the union of the keywords identified by each research assistant to minimize the exclusion of useful keywords. Subsequently, we engage in another round of filtering, where we remove keywords that cannot discriminate *across* topics—i.e., words that are overly general and can be mistaken for other topics. For example, the terms “crime” and “legal” can be identified for immigration, foreign affairs, abortion, and partisanship. This dual emphasis on frequency and exclusiveness reflects established criteria for selecting effective topic keywords (Bischof and Airolidi, 2012).

To finalize the keyword sets used in the model, we rank the keywords in each topic list by their frequency in the corpus and trim the longer list so that both topics have an equal number of keywords. This step is necessary to prevent imbalances in keyword set size from biasing the estimation of topic proportions.⁷

We prepare the corpus for fitting the keyATM models using standard preprocessing steps in computer-assisted text analysis (Lucas et al., 2015). Specifically, we stem all words into tokens;

⁶For a definition of the regions, see <https://www.census.gov/programs-surveys/economic-census/guidance-geographies/levels.html>

⁷As emphasized by the authors of keyATM, frequency is a critical criterion for keyword selection, as it contributes both to model stability and to the empirical salience of the topics (see Figure A3).

remove punctuation, symbols, numbers, and separators; eliminate common English stopwords; and trim the document-term matrix by removing terms that (1) appear in fewer than 1% of documents, (2) appear in more than 99% of documents, (3) occur only once, and (4) fall within the top 0.5% of the frequency distribution. Documents that become empty after this trimming process are also removed. The resulting corpus contains 1,921 documents, 1,406 of which are geolocated, and 4,968 unique tokens.

We then fit a keyATM model with trade and immigration as two labeled topics and 38 unlabeled topics, yielding a total of 40 topics. To determine the number of topics, we first estimate a series of vanilla structural topic models (Roberts et al., 2014), with the number of topics ranging from 20 to 100 in increments of 10. For each model, we evaluate topic quality using semantic coherence (Mimno et al., 2011) and exclusivity metrics (Roberts et al., 2014). We exclude models that are not Pareto-optimal and select 40 as a median value from the remaining set. Fitting the model gives us the document-level topic proportions for trade and immigration. We then aggregate these measures to the commuting zone–party–year level to produce our main outcome variable.

4.2 Validating our model

The validity of our analysis depends on whether the estimated topic proportions accurately reflect the extent to which candidates discuss trade in their speeches. To assess this, we conduct several validation exercises as recommended by Grimmer and Stewart (2013).

First, as a face validity check, we manually inspect the five speeches with the highest estimated proportions for each party. We confirm that these speeches substantively focus on trade (see Table A4). We also confirm that speeches whose titles contain variations of the words “trade” exhibit higher topic proportions for the corresponding topic than the corpus average.

Second, to assess semantic validity (Quinn et al., 2010; Grimmer and Stewart, 2013), we examine the distribution of topics across the corpus and inspect the most distinctive keywords, as measured by FREX scores (Roberts et al., 2014), associated with our focal topic. Indeed, trade topic ranks among the most prominent in the corpus, consistent with their expected salience in presidential campaign discourse. The top FREX keywords further validate the model’s labeling: trade is characterized by terms such as “nafta,” ”deal,” or ”trade.” Meanwhile, our other labeled

topic, immigration, is characterized by words like “illeg,” “border,” and “alien.” These associations give us confidence that the model is indeed capturing the substantive meaning of the two issues (see Figure A4).

Third, we assess predictive validity (Quinn et al., 2010; Grimmer and Stewart, 2013) by examining temporal trends in the proportion of speeches devoted to trade (Figure 4). As expected, we observe that major trade-related events correspond with spikes in the prevalence of the trade topic. For instance, the increase in early 2016 to early 2017 aligns with the U.S. signing of the Trans-Pacific Partnership (February 2016) and its subsequent withdrawal (January 2017). A later spike in August 2018 coincides with President Trump’s announcement of 25% tariffs on steel and 10% tariffs on aluminum imports from all countries.

Fourth, for convergent validity (Quinn et al., 2010), we examine the similarity of model outputs across different specifications. We construct two alternative keyword sets: a “relaxed” set that includes words frequently associated with each topic (i.e. having high relevance) but not necessarily exclusive to it, and a “strict” set limited to words identified by both research assistants as relevant and exclusive to each topic (see Table A3). Using these baseline, relaxed, and strict keyword sets alongside all Pareto-optimal values of k , we generate 18 distinct versions of our outcome variable. Subsequently, we perform a leave-one-out analysis by iteratively excluding each of the top 10 most prolific authors, producing 10 additional outcome variants. For each set, we examine changes in top words (measured by FREX scores) and the correlations among topic shares and with the baseline. Across all specifications, the top words remain highly similar (Tables A5 and A6), and topic shares are strongly correlated (Figures A5 and A6). These results suggest that the model captures a stable “ground truth” related to immigration and trade.⁸

We follow a crowdsourced validation exercises using the *Random Four-Word Set Intrusion* (R4WSI) task as outlined by Ying, Montgomery and Stewart (2022). In this task, respondents recruited through Mechanical Turk are shown three four-word sets drawn from the top 20 high-probability words of the topic one would like to validate, along with one “intruder” set drawn from a different topic. Respondents are asked to identify the set that does not belong. We record

⁸For further robustness, we re-estimate all main regression models using these alternative outcome variables and present the results in Appendix Section F.

the proportion of correct identifications as our measure of topic coherence. We administer the task in two batches. In the first batch, 51 MTurk workers each completed 10 tasks, with the main word sets drawn from either the trade or immigration topic (estimated using the baseline keywords and $k = 40$). Trade and immigration achieved an accuracy rate of 0.888 and 0.735, respectively. These results are comparable to or higher than those reported in [Ying, Montgomery and Stewart \(2022\)](#). In the second batch, 151 workers completed 10 tasks, with word sets randomly drawn from the trade topic estimated using our three keyword sets and models with $k = 40$, $k = 50$, and $k = 70$ ($3 \times 3 = 9$ models total). Our preferred specification achieved an accuracy of 0.870, the highest among all models. The results are also consistent with the first batch results. We also observe that accuracy across all models remains above 0.75 ([Table A7](#)).

4.3 Descriptive Patterns in US Presidential Speeches

We highlight two stylized facts about trade speech in US presidential campaigns. First, candidate messaging on trade policy is persistent over the study period, with an expected increase in messaging during and after the 2016 presidential election. [Figure 4](#) plot the over-time trends in the proportions of speeches on trade.

Our second and more important stylized fact is the existence of substantial geographic variation in campaign speech emphasis on trade policy. [Figure 5](#) maps the geographic distribution of CZ-average trade topic proportions. Trade policy speech is most heavily concentrated in manufacturing areas, with cities in Ohio, Michigan, Wisconsin, and Pennsylvania consistently observing the highest values. A distinct spatial pattern emerges for immigration policy, shown in [Appendix Figure A2](#), where the consistently highest immigration topic states include Tennessee, Mississippi, Georgia, Kentucky, and Arizona. This spatial pattern of campaign speech provides descriptive evidence in favor of the responsiveness hypothesis H1. The rest of the paper is dedicated to rigorous statistical analyses of this result.

Another pattern that emerges from these maps is sparsity. Unsurprisingly, national campaigns lack the resources to visit and give speeches in every CZ, and this is reflected in the fact that most regions observe no speeches in any given election period. This may be a concern if campaigns strategically select into places in a way that is correlated with local interests and policy content.

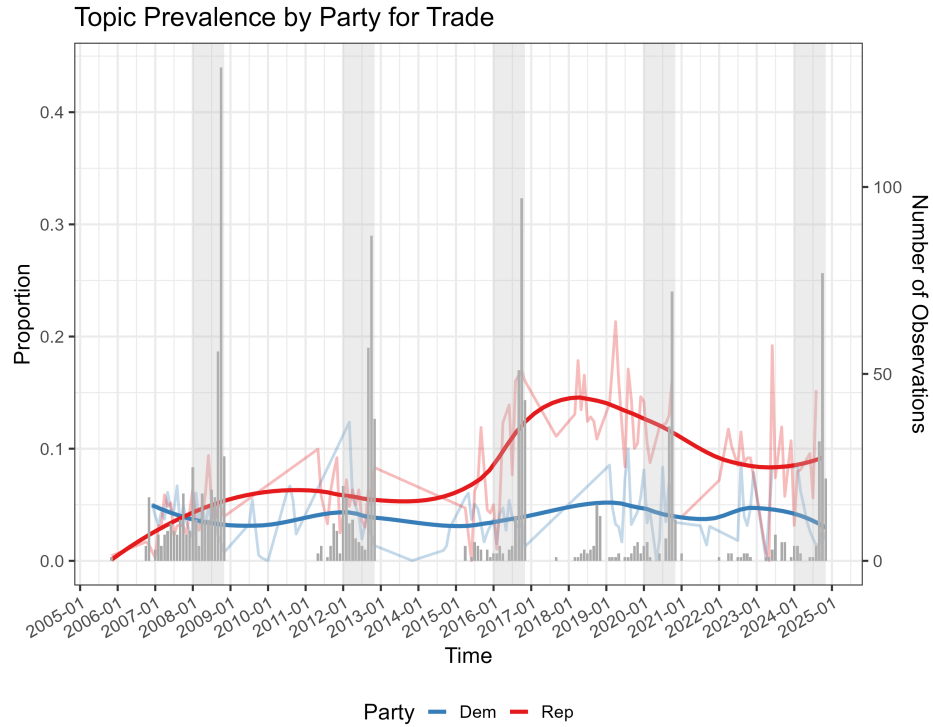


Figure 4: Trends in Trade Speech Proportions in Presidential Campaign Rallies

Geographical distribution of trade topic

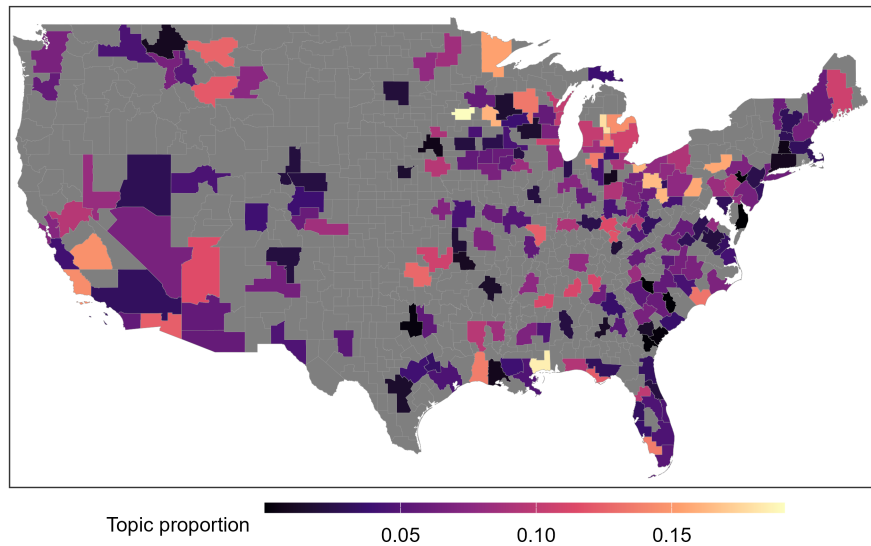


Figure 5: CZ-Average Trade Topic Proportion

To carefully account for this selection process, we separately model the frequency of visits and speeches and reveal that the frequency of campaign contact is weakly or fully uncorrelated with

local interests.

5 Empirical Model of Campaign Responsiveness

To statistically evaluate proposition 1, we estimate the following linear regression:

$$s_d = \beta_1\tau_r + \beta_2(\mathbb{1}[jt = Incumbent]) + \beta_3(\tau_r \times \mathbb{1}[jt = Incumbent]) + \mathbf{X}\psi + \gamma_t + \alpha_j + \epsilon_d. \quad (4)$$

Key parameters follow directly from the model, where s_d is the trade topic share of speech document d given by candidate j in CZ region r in a four-year election period t . Variable $\mathbb{1}[jt = Incumbent]$ is a binary indicator that equals one if candidate j belonged to the incumbent party in election year t . Variable τ_j captures a region’s latent material interest in a protectionist trade policy. We provide three alternative measures, starting with a CZ’s historical manufacturing employment share lagged four presidential cycles (i.e., 16 years) (Eckert et al., 2020). Since the manufacturing specialization is likely endogenous to geographic variation in socioeconomic predictors that might also correlate with speech topics, we use two instrumental variable strategies that are proven in the economics literature.

The first is the China trade shock instrumental variable that uses the post-2001 rise in Chinese imports to European economies to instrument for US industry exposure to Chinese imports. The identification assumptions underlying this Bartik shift share IV has been extensively validated by Goldsmith-Pinkham, Sorkin and Swift (2020). The China shock can explain anywhere between 20 to 55 percent of the decline in manufacturing employment shares in the US.⁹ The other substantial portion of deindustrialization is due in large part to technological change, or more specifically, labor-replacing industrial automation.

To capture the group of manufacturing jobs that are exposed to industrial robotics, we use the Acemoglu and Restrepo (2020) measure of CZ exposure to industrial robots. Like the China shock, this is also a Bartik-style instrumental variable that loads national industry trends in robot

⁹Autor, Dorn and Hanson (2013) estimate that import competition explains about 55% of the decline in manufacturing population share from 2000 to 2007. Acemoglu et al. (2016) put this number closer to 20 percent.

penetration onto local pre-robot industry composition. Robot penetration is constructed from the International Federation of Robotics (IFR) industry-by-year robot stocks. Following [Acemoglu and Restrepo \(2020\)](#), adoption in five European countries, which leads US adoption, serves as an instrument for US robot exposure. Importantly, they focus on the types of automation that are relevant to trade policy since the set of industries and regions that lost jobs is also highly tradable.

These alternative instruments vary in the types of manufacturing regions. Chinese imports heavily exposed labor-intensive industries like furniture, toys, and textiles that concentrate in new industrial areas in the US South. In contrast, [Acemoglu and Restrepo \(2020\)](#) find that industrial robotics primarily impacted regions with capital-intensive manufacturing employment, especially automobiles in Michigan and surrounding areas. We emphasize that this type of automation is directly relevant to protectionist interests. The “task framework” in economics draws a causal link between the jobs exposed to this type of automation and offshoring. For this reason, public opinion on tariff protections is significantly linked to this type of automation ([Owen and Johnston, 2017](#)).¹⁰ This makes local exposure to industrial robots a theoretically relevant way to test the causal effect of trade interests on trade speech.

Variables contained within \mathbf{X} include the control variables: electoral competitiveness, party incumbency, log population, party ID, Census region dummies, and whether the speech was delivered during the midterm cycle, primary cycle, or general election. Electoral competitiveness is an indicator for swing states with a margin of victory of ten percentage points or less. We prefer this large margin to capture a state’s persistent competitiveness that is pre-determined before campaign activity. Vote data come from Leip’s Atlas ([Leip, 2025](#)). Population is constructed from IRS Statistics of Income (SOI) migration statistics ([Internal Revenue Service](#)).

Election period fixed effects τ_t account for period-specific shocks that are common across all CZs. This includes election-specific events like the COVID-19 pandemic, the 2008 financial

¹⁰Increasing trade makes routine and offshorable occupations in manufacturing vulnerable to industrial automation ([Acemoglu and Restrepo, 2020](#); [Owen and Johnston, 2017](#)) while making factors that are not offshored more productive ([Grossman and Rossi-Hansberg, 2008](#)). Building on this, [Lileeva and Trefler \(2010\)](#) show theoretically and empirically that trade liberalization encourages firms to innovate. Among domestic firms, import competition creates pressures to adopt labor-replacing automation, making jobs affected by imports often the same jobs affected by automation ([Blinder, 2009](#)). This deep endogeneity between trade and automation makes it unsurprising that voters respond to automation exposure by increasing support for trade protection and anti-globalization parties ([Owen and Johnston, 2017](#); [Mansfield and Rudra, 2021](#); [Milner, 2021](#); [Wu, 2022](#)).

crisis, and the national increase in trade salience in 2016.

Candidate fixed effects α_j isolate variation in trade speech for a single person across time and space. We can therefore evaluate whether a given candidate crafts a trade messaging strategy that is responsive to certain localized interests. Furthermore, candidate fixed effects allow us to hold constant many possible confounding features that are specific to individuals. Some candidates may systematically give longer speeches that naturally cover more topics. Candidates also systematically vary in how much they talk about trade on average, with some, like Trump, being an outlier. More generally, this within-candidate design offers similar identification benefits as respondent fixed effects in panel surveys.

Finally, we cluster our standard errors at the state level to account for two types of dependencies. First, while we argue that interests are specific to commuting zones, campaigns may, for example, deliver a speech in Detroit while also trying to be responsive to neighboring regions in Michigan that have similar manufacturing characteristics.¹¹ Clustering at the state level allows our standard errors to adjust for all arbitrary forms of dependence across CZs in the same state. Second, our theory explicitly hypothesizes a dynamic between two parties’ strategies in the same state—i.e., party-election-CZ units are not independent. State-clustered standard errors are therefore necessary to account for this dependence.

6 Result I: Heterogeneous Trade Speech Responsiveness by Incumbency

We estimate a series of regressions of model 4 for our three measures of τ_r with and without candidate fixed effects, to probe robustness. The full regression outputs are in Table A15. To ease interpretability of the interactions, we display the marginal effects plot here in Figure 6.

The headline result is that candidates from the challenger party are significantly responsive in their trade speeches to localized increasing in latent protectionist interests. Incumbents, however, are rarely responsive to such local interests. This supports our theoretical expectation

¹¹This is still a form of responsiveness. The difference is that “who” politicians are being responsive to may be a group of similar CZs in a state.

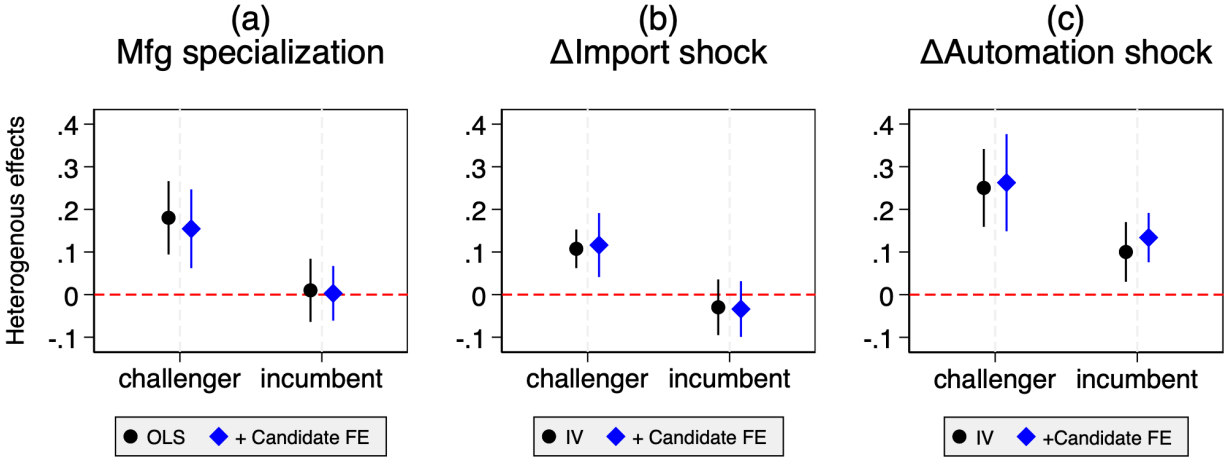


Figure 6: Effects of Protectionist Interests on Trade Topic Proportion, By Incumbency

Notes: Protectionist interests are measured (in z-score standardized units) by manufacturing specialization in (a), instrumented exposure to Chinese imports in (b), and instrumented exposure to industrial automation in (c). The y-axes denote the marginal effects of these trade interests on a speech’s trade topic proportion, in z-score standardized units. Error bars denote 95% confidence intervals calculated from state-clustered standard errors. Estimates come from Table A15.

that incumbents face potentially two disincentives: that talking about trade raises the salience of an issue that divides their coalition, and that talking about trade may inadvertently inform residents of incumbent policies that may have contributed to, or failed to help, residents.

The magnitudes of these effects are substantial in absolute terms and relative to other predictors. Using the more conservative candidate FE specifications, for every one standard deviation (1sd) increase in latent protectionism, the local trade share of speeches among challengers increases by an average of 0.15sd, 0.12sd, and 0.26sd, for manufacturing specialization, the China shock, and automation shock, respectively. Also consistent with the theory, the *independent* impact of $\mathbb{1}[jt = Incumbent]$ is -0.29sd on average across specifications without candidate FEs.¹² For reference, the largest predictor of trade speech is a binary variable for candidate party, with Republicans discussing trade by 0.84sd more than Democrats. Considering that our measures of τ_r are continuous rather than binary, like candidate party, this makes CZ-variation in latent protectionism, particularly among challengers, among the most important predictors of trade speech

¹²We use OLS estimates for this variable since the estimates of the *independent* effect (but not the interaction) of incumbency in FE models are unreliable given low within-candidate variation.

in US presidential campaigns.

7 Result II: Heterogeneous Responsiveness by Electoral Competition

This section evaluates proposition 2 that the effect of τ_r should be largest when increases in τ_r occur in competitive cross-pressured regions. We operationalize this concept with a binary variable equal to one if CZ r falls within a competitive swing state, identified by a margin of victory of ten percentage points or less. We focus on swing states since those are the most necessary political geography for presidents to win, and because a close margin of victory indicates that residents are more cross-pressured between parties relative to safe states.

We follow the same procedure as before that interacts our measures of τ_r with swing states. The marginal effects are shown below in Figure 7.

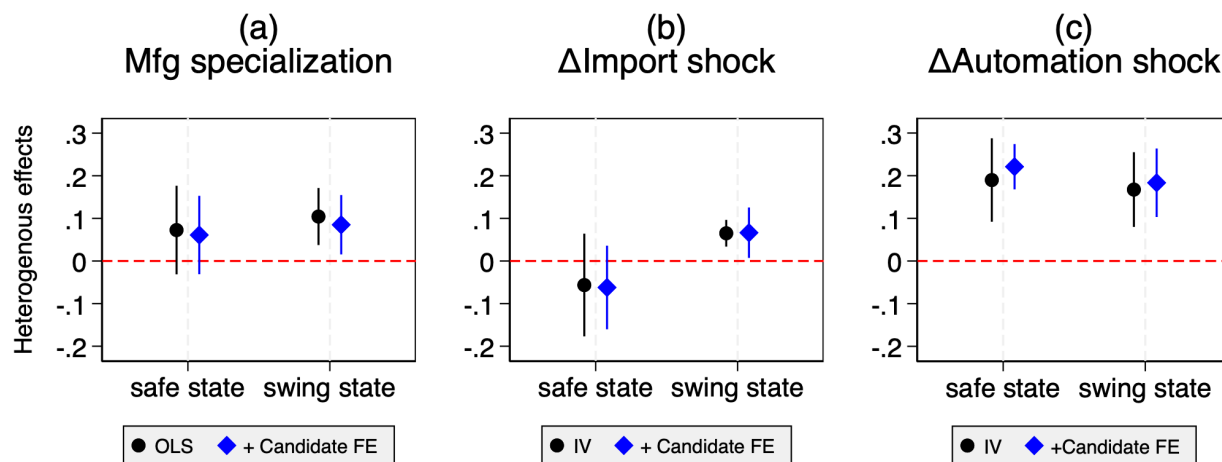


Figure 7: Effects of Protectionist Interests on Trade Topic Proportion, By State Competitiveness

Notes: Protectionist interests are measured (in z-score standardized units) by manufacturing specialization in (a), instrumented exposure to Chinese imports in (b), and instrumented exposure to industrial automation in (c). The y-axes denote the marginal effects of these trade interests on a speech's trade topic proportion, in z-score standardized units. Error bars denote 95% confidence intervals calculated from state-clustered standard errors. Estimates come from Table A16.

The figure reveals mixed evidence for proposition 2. The strongest evidence comes from panel (b) showing the heterogeneous marginal effects of Chinese imports. In electorally competitive

swing states, campaigns are significantly more likely to increase the salience of trade. We observe the same patterns in panel (a) for manufacturing specialization with significant campaign responsiveness in swing states but not in safe states. However, the interaction terms are not statistically significant. For automation exposure in panel (c), campaigns are always responsive to rising protectionist interests, regardless of how competitive the state is. Given that this treatment highlights manufacturing in automobiles, this suggests a special electoral incentive to protect that industry regardless of whether auto production is located in a swing or safe state. This can be rationalized from our model if there exist CZs in safe states that are particularly effective for amplifying the national salience effect of trade speeches. For instance, messaging about trade from a factory town, even if not in a swing state, may have special rhetorical value in amplifying the message nationally.¹³

8 Placebo Test for Alternative Out-Group Anxiety Mechanism

Consistent with our theory, we interpret the above results as evidence of campaign responsiveness to voters' latent economic interests in protectionism. However, these results could also be explained by recent cultural backlash theories whereby local economic shocks trigger racial out-group anxieties (Baccini and Weymouth, 2021). By this logic, campaigns raise the salience of trade in manufacturing areas in order to pander to anti-foreigner anxieties.

Anecdotally, we see no evidence of anti-foreigner pandering in high-trade speeches delivered in manufacturing areas. Candidates across time and from both parties emphasize the job losses from trade agreements, often with in-depth economic details. To more systematically test this cultural backlash hypothesis, we re-run our analyses, replacing the trade topic dependent variable with immigration topic proportions. Under the cultural hypothesis, we expect campaigns to increase the salience of immigration (in addition to trade) to pander to voters' anti-foreigner anxieties.¹⁴ Testing this requires us to replicate our KeyATM measurement procedure for immigration to be confident that we are measuring immigration and not other topics. The results of these tests

¹³In the formal model in Section A, we can allow for symbolic regions though the ω_r salience weights. For our comparative statics, we assumed all these weights were equal for simplicity.

¹⁴This assumes that anti-foreigner anxieties reflect a bottom-up process with voters demanding anti-foreigner platforms and elites pandering to this demand. However, we could alternatively assume a top-down pathway with elites persuading economically vulnerable communities to blame foreigners for their decline.

are shown in Figure 8.

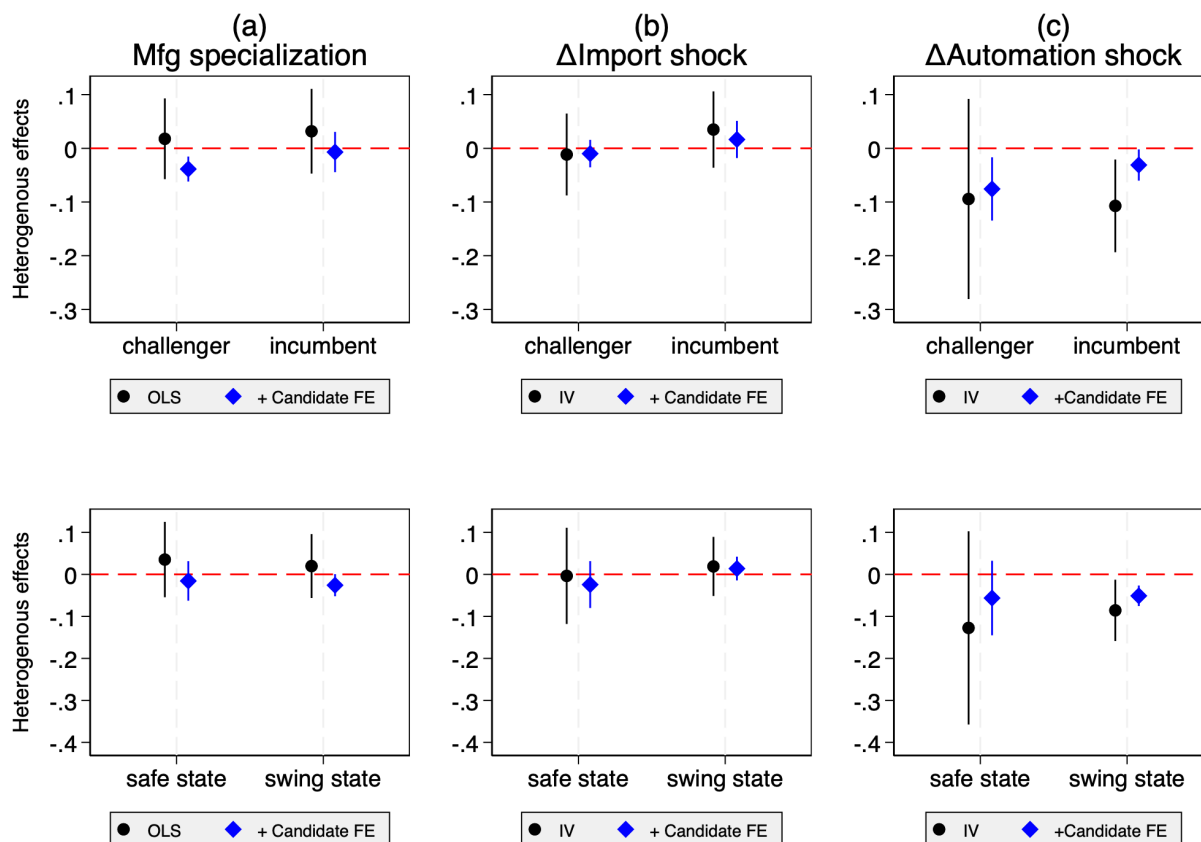


Figure 8: Placebo Tests for Out-Group Anxieties: Immigration Topic Proportions

Notes: Protectionist interests are measured (in z-score standardized units) by manufacturing specialization in (a), instrumented exposure to Chinese imports in (b), and instrumented exposure to industrial automation in (c). The y-axes denote the marginal effects of these trade interests on a speech’s immigration topic proportion, in z-score standardized units. Error bars denote 95% confidence intervals calculated from state-clustered standard errors. Estimates come from Tables A17 and A18 for heterogeneity by incumbency and swing state, respectively.

Every test rejects the alternative cultural hypothesis. Under no conditions, whether by challengers or incumbents, or in swing states or safe states, do campaigns increase the salience of immigration in regions with protectionist interests. In fact, we often observe the opposite pattern with campaigns significantly decreasing the salience of immigration in areas with manufacturing employment and exposure to automation. Decreases in immigration speech within manufacturing regions is inconsistent with cultural arguments, but consistent with the economic geography

of immigration, which is concentrated in non-manufacturing regions—border regions, specifically (Mayda, Peri and Steingress, 2022). Indeed, the bulk of scientific evidence suggests that immigration politics is driven less by labor market competition than by racial anxieties (Hainmueller and Hangartner, 2013; Sniderman, Hagendoorn and Prior, 2004; Valentino, Brader and Jardina, 2013; Mutz, 2018).¹⁵ We interpret these results as affirming our model’s economic mechanism and challenging arguments that trade politics reflects out-group anxieties over foreigners.

9 Robustness Checks

9.1 Extension to Trade Winning Regions

This section shows that the theory extends beyond regions with protectionist interests. If incumbents’ coalition simultaneously contains trade winning and losing regions, then theory predicts that candidates from the challenger party should increase trade messaging in both areas. We measure trade winning areas by measures historical regional specialization in agricultural and service industries, which have gained significantly in productivity and employment by trade liberalization. We find empirical support for this symmetry in Figure 9.

9.2 Campaign Selection into Geographies

While we find it implausible that campaign messages can, within a given election cycle, influence which regions win or lose from imports or industrial robots, candidates can and do strategically choose which geographies they deliver speeches to on the campaign trail. This may be a concern for our analysis if campaigns’ decisions over which areas to visit are overly influenced by treatment intensity, perhaps wholly avoiding high or low exposure areas. This potential selection is difficult to test, especially given that the bulk of CZs in the country never receive a visit by a presidential candidate in any given election. To test selection, we require a national dataset on the frequency of campaign contact, including CZs that are never contacted.

Appendix Section I analyzes two selection processes using data from all commuting zones

¹⁵Earlier political economy research, however, proposed *Mundell Equivalence*: under neoclassical assumptions, trade and immigration are complements because they produce identical distributional effects on voters (Scheve and Slaughter, 2001). If so, voters exposed to trade shocks might rationally demand immigration restrictions. In our framework, however, this equivalence should be weak because trade and immigration shocks are geographically distinct, implying different local winners and losers under limited labor mobility.

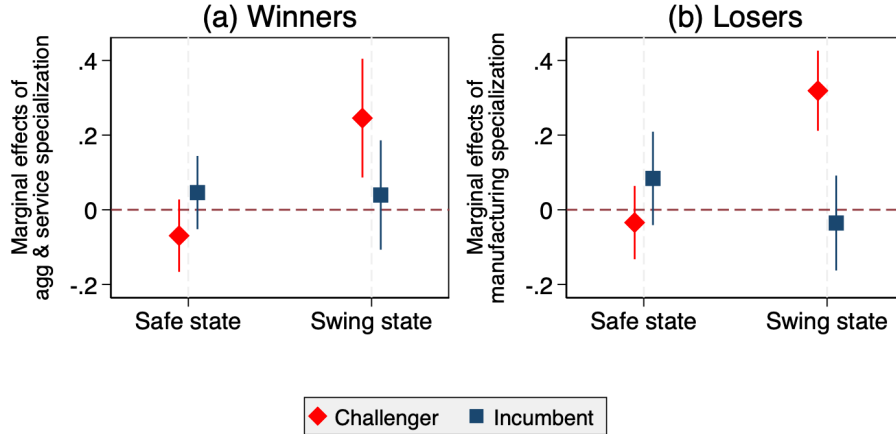


Figure 9: Trade Messaging in Winning and Losing Regions

Notes: Trade interests are measured (in z-score standardized units) by specialization in agriculture and services (a) and specialization manufacturing in (b). The y-axes denote the marginal effects of these trade interests on a speech’s trade topic proportion, in z-score standardized units. Error bars denote 95% confidence intervals calculated from state-clustered standard errors.

in the continental US: the frequency that an area is visited by a campaign, and the frequency that an area is visited *and* receives a campaign speech. To accomplish this, we supplement our speech data with additional information on candidate appearances. Specifically, we incorporate the 2008–2024 version of Devine’s Campaign Visits Database (CVD) (Devine, 2025), which records 1,440 visits by presidential and vice presidential candidates during our analysis period. When merged with the American Presidency Project (APP) data, we identify a total of 2,167 geolocated campaign visits.

We show in Figure A12 that visits and speeches appear exogenous to industrial robotics exposure and Chinese import competition. This increases our confidence that these measures of local interest are exogenous to campaign selection effects. However, campaigns mildly avoid visiting manufacturing regions. This suggests that we cannot rule out selection into treatment and should use caution when interpreting results that use manufacturing specialization to identify protectionist interests. Reassuringly, the bulk of the variation in visits and speeches is orthogonal to local interests. The main determinants of selection make intuitive sense: campaigns gravitate towards locations with the largest populations of swing voters, and prefer to visit ideologically in-group areas (i.e., Democrats visit liberal CZs).

9.3 Pre-Trend Tests Using Pre-Shock Campaign Speeches

To further probe the robustness of our design, we show a series of pre-trend tests that support the key identification assumption that our instruments for the import shock and automation shock are exogenous to campaign strategies on trade. Under this assumption, we should not observe statistically significant effects of these shocks on the trade content of speeches delivered before the shocks occurred.

To test this assumption, we extend our dataset to include 408 campaign speeches delivered in the 1992, 1996, and 2000 presidential election cycles. We do not find statistically significant evidence that import or automation shocks in the post-2000 period influenced trade topic proportions in the pre-treatment period, consistent with our identification assumption. The results of this analysis can be found in Appendix Section J.

9.4 Trade is the Most Important Topic next to Compensation

We have shown that trade becomes more salient—and immigration less salient—in speeches delivered in regions with protectionist interests, supporting the theory’s economic mechanism over a cultural alternative. However, many other topics of potential relevance, or irrelevance, may move up or down. Analyzing those other topics is useful for establishing whether campaigns believe that trade is a uniquely important issue to these regions. Economic geography theory predicts that manufacturing holds a unique role in these areas as the engine that significantly powers all other activities, making issues like trade central to winning local support. The compensation hypothesis further predicts a similar importance of topics related to policies that compensate trade-related losses. All other topics should not significantly vary by local protectionist interests.

To test this, we take our main empirical specification from model (6) of Table A14, and replicate it over all 40 topics. This results in 40 different coefficient estimates on the effect of automation exposure, one for each topic. The results are displayed in Figure A14. Three topics stand out above all others. The largest effect is on trade, consistent with economic geography theory. The other two are unlabeled topics that are denoted by their FREX words, which provide a very imperfect representation of the latent topic. The topic with FREX words *research*, *global*, *sector*, *advanced*, *21st* is most likely related to advanced industries, while the topic with FREX

words *emissions, carbon, fuel, oil, greenhouse* clearly relates to energy and the environment. While we caution here against “reading the tea leaves,” the increased salience of these two topics provides preliminary support for the compensation hypothesis. We point to this finding as a promising area for further research.

This finding took center stage in a January 12th 2008 speech by candidate John McCain delivered in Michigan, where he said “globalization will not automatically benefit every American....But it is government’s job to help workers get the education and training they need for the new jobs that will be created by new businesses in this new century....America remains the world’s innovator; we can and should be at the forefront of green technology.”¹⁶ This explicit linkage between trade and job compensation reinforces the more general point that campaigns believe trade to be the most important topic for winning support in manufacturing regions.

9.5 The Results Generalize Beyond Trump

While challengers, on average, raised the salience of trade when campaigning in protectionist areas, Donald Trump uniquely converted trade rhetoric into policy once in office. Therefore, a natural question is whether Trump is an outlier in other ways that drive the main result. To test this, we replicate the last analysis while removing Trump’s 210 rally speeches from the sample, leaving a sample size of 1,155.

These coefficients are displayed in Figure A15. The results do not change in any significant way, suggesting that Trump’s challenger strategy on trade was not unique. We can therefore conclude that the electoral incentive to raise the salience of trade is a more durable feature of US presidential politics that pre-dates 2016 and will likely persist after Trump’s presidency. Consequently, as long as presidents are sufficiently election-motivated, there is no obvious reason why the same electoral incentives that constrain trade speech should not also constrain leaders’ trade policies once in office. Indeed, an electorally sensitive Biden administration made no significant efforts to undo Trump’s first set of tariffs, nor did a prospective Harris administration signal any significant policy reversal.

¹⁶John McCain, January 12, 2008. Remarks to the Americans for Prosperity Michigan Summit in Livonia, Michigan. The American Presidency Project. <https://www.presidency.ucsb.edu/documents/remarks-the-americans-for-prosperity-michigan-summit-livonia-michigan>.

9.6 Sensitivity to Topic Models and Partisan Heterogeneity

Our results are insensitive to how we measure trade and immigration topic proportions in speeches (see Appendix Section G). This provides a key validation of our KeyATM measurement strategy. Furthermore, Appendix Section H reveals partial evidence of partisan heterogeneity within these patterns. Both Republicans and Democrats respond similarly to local industrial robot exposure. However, for manufacturing specialization and the China shock, Republican speeches are more sensitive to the moderating impact of state competitiveness. The most consistent pattern across these tests is that both parties converge on similar responsiveness strategies as competitiveness increases.

10 Conclusion

Democratic accountability over trade policy involves a long causal chain from individual interests to elite competition and policy. We investigate an under-researched step in this chain: the inception of trade policy into US presidential campaign platforms. This step has become increasingly important to understand due to trade policy's increasing presence on the campaign trail. Consequently, questions about the relative influence of responsiveness to public interests versus elite influence in campaign messages matter more than ever.

We demonstrate that protectionist interests, from rising imports and industrial automation, are central to understanding why candidates running for president raise the salience of trade on the campaign trail. This reflects both a top-down and bottom-up process with campaign messaging on trade showing significant responsiveness to the geography of globalization's economic losers. However, not all local interests are recognized, and not all candidates are responsive. Only candidates from challenger parties consistently raise the salience of trade, and they are selectively responsive to interests concentrated geographically in competitive areas.

These are significant findings in the literature on globalization. Largely due to the lack of data on elite behavior, the bulk of research focuses on the demand side of politics, which significantly disagrees on the importance of voters. On one side, region-level studies show that voters in manufacturing areas demand trade protectionism and support challengers and populists (Bisbee

and Rosendorff, 2025; Broz, Frieden and Weymouth, 2021; Colantone and Stanig, 2018*b*; Flaherty, 2023, 2025; Milner, 2021). On the other side, studies of individual voters reveal weak or inconsistent evidence that voters understand trade (Guisinger, 2009; Rho and Tomz, 2017) or respond to its economic effects (Mansfield and Mutz, 2009; Mutz, 2018; Hafner-Burton et al., 2017; Margalit, 2019). Rather, the average voter’s attitudes on trade are highly sensitive to elites messages (Brutger and Guisinger, 2025; Guisinger, 2017). This paper sheds significant light on this debate by collecting the largest geocoded dataset on trade messaging by US presidential candidates. Our theoretical model and results show support for elements of each literature. Despite widespread low salience and low information on trade among voters, electoral incentives induce campaigns to strategically act responsively to voters latent trade interests. However, that responsiveness fails to materialize under many conditions. Furthermore, arguments that elites use trade to stoke or placate out-group anxieties appear overblown, as we find little evidence that campaigns pair trade speech with concerns over foreigners.

Perhaps the most important direction for further research is to use leader speech data to measure the other dimension of accountability: policy positions. This study’s findings are limited to understanding the conditions under which leaders emphasize trade relative to other issues. We argue that this dimension is of key relevance for “hard” issues like trade, which normally are not salient in national elections. While this is an important contribution, we also need to understand what issue positions (support or oppose) competing politicians take on each issue. Our formal model provides a ready platform for studying such questions. Whereas we held platforms constant for analytical tractability, the same framework can be used to endogenizing trade positions. This will be helpful for future research to incorporate counter-framing dynamics. Furthermore, our geocoded speech dataset significantly lowers the research costs to empirically exploring these important questions.

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Appendix for: Commerce and Campaigns: The Local Roots of
Globalization Messaging in US Presidential Speeches

A Formal Model

A.1 Primitives

A.1.1 Actors

Voters: The electorate is divided into four distinct geographic regions r .

Candidates: Two candidates $j \in I, C$ for the incumbent I and challenger C , respectively.

A.1.2 Actions

The median voter in each region has one choice: to vote for candidate I or C .

Candidates decide trade message share $s_{jr} \in [0, 1]$.

A.1.3 Voter Preferences and Utility

Following [Downs \(1957\)](#), voter utility is a salience-weighted quadratic loss in a two-dimensional issue space:

$$U_r(j) = -\beta(\tau_j - \hat{\tau}_r)^2 - (1 - \beta)\left[(x_j - x_r)^2 - \mathbf{1}\{j = I\}\delta\right]. \quad (5)$$

Candidates' policy platforms over trade τ_j and culture x_j are considered fixed since our paper focuses on equilibrium trade messaging strategies. Candidates' national trade platforms equal $\tau_j \in [0, 1]$ where 0 represents a low tariff rate (free-trade policy) while 1 represents a high tariff (protectionist policy).

Candidates cultural policy position $x_j \in \{0, 1\}$ is fixed with a zero and one represent a progressive and conservative position, respectively. To fix ideas, consider the case where the incumbent belongs to the progressive party while the challenger is conservative.

National trade salience β is a function of the total amount of trade messaging across regions and across candidates, plus some baseline pre-existing trade salience:

$$\beta = \beta(M) = \beta^0 + (1 - \beta^0)\frac{M}{M + \kappa}, \quad \kappa > 0, \beta^0 \in (0, 1). \quad (6)$$

Where $\beta^0 > 0$ measures the exogenous baseline level of trade salience, which we assume is low to analyze our question about how trade emerges as an issue in presidential elections. M equals the aggregate amount of trade-related speeches by candidates across regions:

$$M = \sum_r \omega_r s_{I_r} + \sum_r \omega_r s_{C_r} \quad (7)$$

The regional salience weight ω_r serves an important function to approximate the idea that locations vary in the efficiency by which local messages are broadcast nationally. We argue that nationalization of local messages is most influenced by electoral competitiveness. In our empirical analysis, we expect messages delivered in swing states to attract national attention given the unique local density national media outlets who travel there to report on local rallies. National news outlets are especially likely to nationally broadcast a candidates' local behaviors when in swing states given these locations' pivotal role in the election [CITE]. This concentration of national attention in turn encourages candidates to co-locate their trade messages in order to boost the national salience of their platform. We allow this feature to vary exogenously to avoid the additional complications of endogenizing media firms' locational strategies. This also allows ω_r to capture a broader set of characteristics beyond swing states that may amplify local policy messages nationally: locations that are symbolic to particular issues (e.g., the border for immigration and Detroit for auto workers), and capital cities where news media firms naturally agglomerate. The κ term keeps β bounded and can be interpreted as a scaling parameter that determines how quickly M boosts trade salience. More substantively, we can conceptualize κ as how crowded the issue environment is.

Incumbency advantage takes the form of a culture-specific valence $\delta > 0$ that favors the incumbent.

Policy ideal points: For concreteness, consider the following region labels to denote their heterogeneous preferences over culture and trade:

- *PW*: progressive trade winner.
- *PL*: progressive trade loser.
- *KW*: conservative trade winner.

- *KL*: conservative trade loser.

Progressive (*P*) regions prefer progressive cultural policies ($x_{r \in \{PW, PL\}} = 0$) while conservative (*K*) regions prefer conservative cultural policies ($x_{r \in \{KW, KL\}} = 1$). Trade losers would benefit from a high tariff policy while trade winners would benefit from a lower tariff, such that $\tau_{PL} = \tau_{KL} > \tau_{PW} = \tau_{KW}$.

Perceived preferences and campaign information: To model speech persuasion, consider voters' *perceived*, or *estimated*, trade policy preference $\hat{\tau}_r$ as a weighted average of a region's material ideal point τ_r , defined above by economic geography, and an arbitrary prior τ_r^0 :

$$\hat{\tau}_r = \Psi_r \tau_r + (1 - \Psi_r) \tau_r^0. \quad (8)$$

The arbitrary prior belief τ_r^0 may reflect partisan biases, out-group anxieties, or sociotropic perceptions about how trade impacts the country as a whole (Mansfield and Mutz, 2009). The weight Ψ_r reflects the amount that voters are persuaded by messages about trade's local economic impacts relative to their biased prior. This persuasion weight increases in the local trade messaging shares from both candidates: $\Psi_r = 1 - \exp\{-a(s_{Ir} + s_{Cr})\}$. Here, we can think of $a > 0$ as the persuasion technology, which we assume for simplicity is $a = 1$ and universal across regions and candidates.¹⁷ This functional form keeps policy preferences $\hat{\tau}_r$ bounded $\in [0, 1]$ while simply reflecting our intuition: voters' learn more about trade policy when they are targeted by informational campaigns. If neither candidate dedicates any of their local speeches to trade ($s_{Ir} + s_{Cr} = 0$), then $\hat{\tau}_r = \tau_r^0$ and residents do not learn about shocks to τ_r . We can therefore say that local messaging allows voters to realize their latent demand for tariffs. To avoid making too strong assumptions about bias in candidate messaging, we assume that τ_r is simply a function of any local economic shock—from trade, automation, or otherwise—and that trade messaging simply induces targeted voters to update in the direction of *perceiving* a plausible link between that regional outcome and trade policy.

¹⁷Extensions could consider what happens when some voters are more “vulnerable” to elite persuasion, or whether candidates have asymmetric persuasion capabilities due to, for example, more efficient use of social media. However, in this paper, we are not interested in questions about differential persuasion effects, and simply assume that persuasion exists.

Vote choice: Define Δ_r as the utility difference between candidates $U_r(C) - U_r(I)$:

$$\Delta_r = (1 - \beta) \left[(x_I - x_r)^2 - (x_C - x_r)^2 - \delta \right] + \beta \left[(\tau_I - \hat{\tau}_r)^2 - (\tau_C - \hat{\tau}_r)^2 \right]. \quad (9)$$

Region r votes for the challenger C iff $\Delta_r + \varepsilon_r \geq 0$. The term ε_r is an election-wide shock with logistic CDF F .

A.1.4 Candidate utility

Candidates choose trade messages to maximize the probability of winning a majority of regions, minus campaign costs.

Candidate payoffs: Candidate payoffs aggregate votes and costs across regions:

$$\Pi_C = P\left(\sum_r \mathbf{1}[-\Delta_r + \varepsilon_r > 0] > 2\right) - Cost_C. \quad (10)$$

For campaign costs, a simple quadratic representation that increases in messaging is:

$$Cost_j = \sum_r \frac{s_{jr}^2}{2}. \quad (11)$$

B Timing

1. Nature sets the environment:

- initial trade salience β_0 is low, say 0.25, making culture more heavily weighted in voting.
- regional population weights μ_r and salience weights ω_r ;
- salience scaling parameter $\kappa = 1$.
- local culture ideal points $x_{PW} = x_{PL} = 0$; $x_{KW} = x_{KL} = 1$.
- local tariff ideal points τ_r with the simplifying constraint that $\tau_{PL} = \tau_{KL} > \tau_{PW} = \tau_{KW}$.
- incumbent's culture valence advantage $\delta = 0.05$;

- candidate policy platforms (x_j, τ_j) .
2. Candidates choose $s_{jr} \in [0, 1]$.
 3. Nature draws a mean zero popularity shock ε_r with logistic CDF $F = \frac{1}{1+\exp\{-\Delta/\sigma\}}$.
 4. Voters vote with the winner determined by majority rule and candidate payoffs are realized.

C FOCs

Redefine Δ_r as:

$$\Delta_r = (1 - \beta)H_r + \beta T_r$$

where H and T_r are the challenger's local cultural and trade advantage, respectively:

$$H_r = (x_I - x_r)^2 - (x_C - x_r)^2 - \delta$$

$$T_r = (\tau_I - \hat{\tau}_r)^2 - (\tau_C - \hat{\tau}_r)^2$$

Given $\tau_I = 0$ and $\tau_C = 1$:

$$T_r = (\hat{\tau}_r)^2 - (1 - \hat{\tau}_r)^2$$

$$T_r = 2\hat{\tau}_r - 1.$$

Substituting perceived trade preferences:

$$T_r = 2(1 - e^{-(s_{Ir} + s_{Cr})})(\tau_r - \frac{1}{2}).$$

Define an affected region indexed by q and differentiate Δ_q , which can be rearranged $\Delta_q = (1 - \beta)H_r + \beta T_r$, which we can rearrange as:

$$\Delta_q = H_q + \beta(T_q - H_q).$$

We differentiate the following:

$$\frac{\partial \Delta_q}{\partial s_{jr}} = \frac{\partial \beta}{\partial s_{jr}} (T_q - H_q) + \beta \frac{\partial T_q}{\partial s_{jr}}$$

Here, messaging in region r affects Δ_q in two ways: The first term captures the national salience effect where s_{jr} increases β , affecting every region q ; The second term captures the local persuasion effect where s_{jr} increases T_q only when $q = r$.

$$\frac{\partial \beta}{\partial s_{jr}} = \frac{(1 - \beta_0)\kappa\omega_r}{(M + \kappa)^2}, \text{ with } \frac{\partial M}{\partial s_{jr}} = \omega_r,$$

$$\frac{\partial T_q}{\partial s_{jr}} = \mathbf{1}\{q = r\} 2e^{-(s_{Ir} + s_{Cr})} \left(\tau_r - \frac{1}{2}\right).$$

Substituting, we get the key regional derivative:

$$\frac{\partial \Delta_q}{\partial s_{jr}} = \underbrace{\frac{(1 - \beta_0)\kappa\omega_r}{(M + \kappa)^2} (T_q - H_q)}_{\text{National salience effect}} + \underbrace{\beta \mathbf{1}\{q = r\} 2e^{-(s_{Ir} + s_{Cr})} \left(\tau_r - \frac{1}{2}\right)}_{\text{Local persuasion effect}} \quad (12)$$

Challenger's FOC

$$\begin{aligned} \frac{\partial \Pi_C}{\partial s_{Cr}} &= \sum_q f(-\Delta_q) \frac{\partial \Delta_q}{\partial s_{Cr}} - s_{Cr} = 0 \\ s_{Cr}^* &= \sum_q f(-\Delta_q) \frac{\partial \Delta_q}{\partial s_{Cr}} \end{aligned}$$

Incumbent's FOC

$$\begin{aligned} \frac{\partial \Pi_I}{\partial s_{Ir}} &= - \sum_q f(-\Delta_q) \frac{\partial \Delta_q}{\partial s_{Ir}} - s_{Ir} = 0 \\ s_{Ir}^* &= - \sum_q f(-\Delta_q) \frac{\partial \Delta_q}{\partial s_{Ir}} \end{aligned}$$

D Descriptive Statistics

Table A1: Summary Statistics

Variable	Panel A: All CZ-years				Panel B: Speech years			
	Mean	SD	Min	Max	Mean	SD	Min	Max
<i>Speech outcomes</i>								
Visits	0.334	1.373	0.000	32.000	3.221	3.392	1.000	32.000
Speeches	0.185	0.966	0.000	28.000	2.127	2.570	1.000	28.000
Immigration topic proportion	0.058	0.098	0.000	0.400	0.058	0.098	0.000	0.400
Trade topic proportion	0.062	0.057	0.000	0.324	0.062	0.057	0.000	0.324
<i>Key exposures</i>								
Import shock	2.638	3.018	-0.629	43.085	2.677	2.633	0.047	28.826
Automation shock	0.330	0.313	0.035	2.654	0.407	0.440	0.053	2.654
Mfg specialization	0.181	0.115	0.000	0.648	0.190	0.094	0.012	0.479
<i>Instruments</i>								
IV: Import shock	2.509	2.536	-0.723	28.655	2.588	1.646	0.058	12.363
IV: Automation shock	0.479	0.322	0.092	2.808	0.605	0.476	0.092	2.808
<i>Controls</i>								
CZ ideology	0.208	0.158	-0.337	0.856	0.052	0.122	-0.337	0.312
CZ MoV	0.306	0.175	0.007	0.892	0.178	0.117	0.015	0.624
State presidential MoV	0.161	0.108	0.001	0.514	0.095	0.086	0.001	0.396
Swing state	0.333	0.471	0.000	1.000	0.636	0.481	0.000	1.000
Incumbent	0.500	0.500	0.000	1.000	0.534	0.499	0.000	1.000
ln(pop)	11.319	1.676	6.646	16.494	13.521	1.206	9.948	16.494
Mean days to election	168.808	219.685	1.000	1209.000	234.963	237.353	1.000	1209.000

Note: Panel A summarizes all CZ \times year observations; Panel B restricts to CZ \times years with at least one speech. Population is IRS-based.

Sources: The American Presidency Project (Woolley, 1999); Leip's Atlas (2025); American Ideology Project (Warshaw & Tausanovitch, 2022); IRS SOI; CBP; Autor, Dorn, and Hanson (2013); Acemoglu & Restrepo (2020).

Table A2: Speech-level Summary Statistics

Variable	Mean	SD	Min	Max
<i>Speech outcomes</i>				
Immigration topic proportion	0.038	0.076	0.000	0.400
Trade topic proportion	0.054	0.055	0.000	0.331
<i>Key exposures</i>				
Import shock	0.957	0.641	0.023	5.525
Automation shock	0.411	0.545	0.053	2.654
Mfg specialization	0.164	0.089	0.012	0.479
<i>Instruments</i>				
IV: Import shock	1.307	0.816	0.037	4.159
IV: Automation shock	0.601	0.584	0.092	2.808
<i>Controls</i>				
Republican	1.431	0.495	1.000	2.000
Swing state	0.614	0.487	0.000	1.000
Incumbent	0.502	0.500	0.000	1.000
ln(pop)	14.034	1.185	9.948	16.494
Primary election	0.472	0.499	0.000	1.000
General election	0.439	0.496	0.000	1.000

Note: Unit of observation is a speech. The sample follows the estimation sample used in the speech-level analysis.

Sources: The American Presidency Project (Woolley, 1999); Leip's Atlas (2025); American Ideology Project (Warshaw & Tausanovitch, 2022); IRS SOI; CBP; Autor, Dorn, and Hanson (2013); Acemoglu & Restrepo (2020).

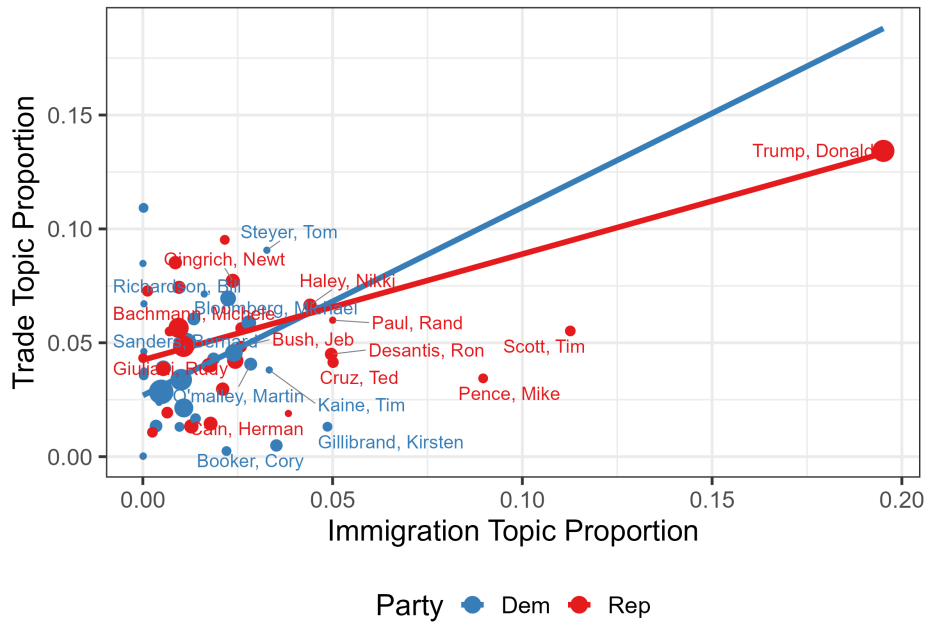


Figure A1: Trade and Immigration Speech by Candidate. *Notes:* Size of points indicates candidate's number of speeches. Lines of best fit are fitted over candidate-level data (collapsed across years), and are weighted by each candidate's number speeches.

Geographical distribution of immigration topic

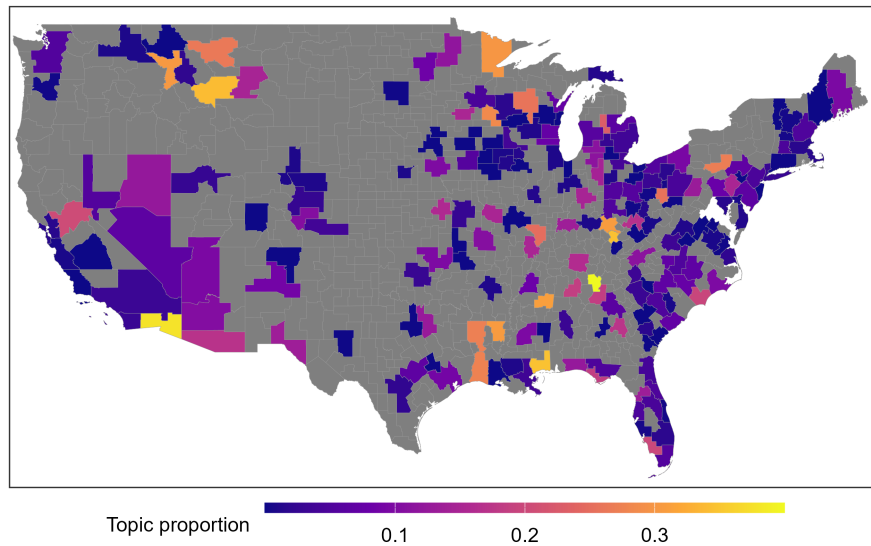


Figure A2: CZ-Average Immigration Topic Proportion

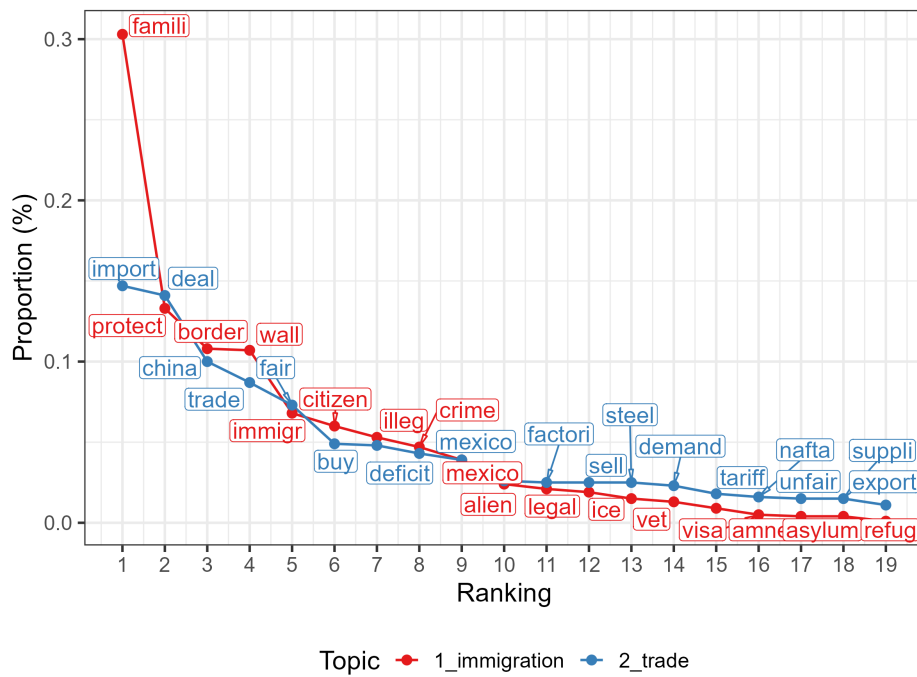


Figure A3: Keywords used to label trade and immigration in our main keyATM model and their respective proportion in the corpus

E Keyword Search Methodology

1. Identify the focal issue topics for KeyATM: trade and immigration.
2. Randomly select one speech for each combination of year, party, and Census region, yielding 16 ($2 \times 2 \times 4$) speeches per topic.
 - **Election year:** 2008 (pre-Trump) and 2016 (post-Trump), to capture period-specific terminology. For instance, candidates emphasized “Haitian” in 2024 but used “amnesty” more frequently in 2008 when discussing immigration.
 - **Party:** Republican and Democratic speeches, to capture partisan variation in lexical framing (e.g., “undocumented” vs. “illegal”).
 - **Census region:** four Census regions.¹⁸ This accounts for geographic variation in how issues are framed. A candidate in New Mexico may emphasize “wall,” whereas in Ohio emphasis may shift toward “asylum.”
3. **Keyword Selection.** For each speech, read the full text and locate paragraphs that clearly discuss the assigned topic. For each relevant paragraph, list the words most indicative of that topic. Keywords may be broad (“immigration”) or specific (“asylum,” “Haitian”). At this stage, err on the side of inclusion. Research assistants work independently and are blind to each other’s lists. Some speeches may contain no relevant paragraphs, in which case the keyword vector may be empty.
4. **Filtering Round 1.** After two research assistants independently compile their lists, the group reviews all proposed keywords. For each topic, we take the union of both lists and add any non-overlapping terms the group agrees are appropriate.
5. **Filtering Round 2.** Once preliminary lists are created for all topics, conduct a final cross-topic screening. Remove words that cannot reliably distinguish between topics—for example, general terms such as “crime” or “legal,” which may apply to immigration, foreign affairs, abortion, or partisanship. This final stage is performed only after topic-specific lists are constructed, to avoid dropping discriminating keywords too early.

¹⁸<https://www.census.gov/programs-surveys/economic-census/guidance-geographies/levels.html>

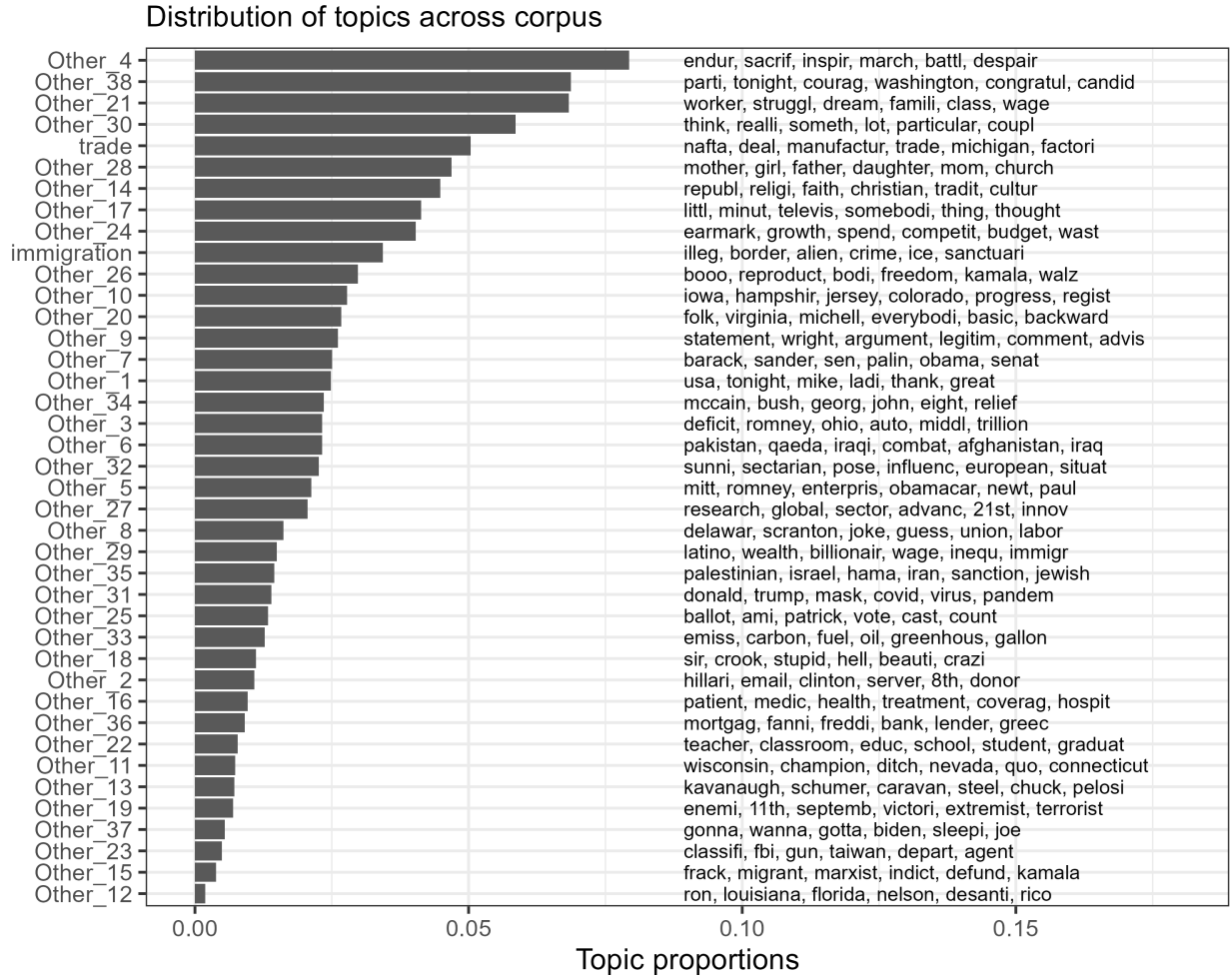


Figure A4: Topic distribution and most distinctive words (measured by FREX scores) for each topic. Topics are estimated using our baseline model with $k = 40$.

F Validation of KeyATM model

F.1 Crowdsourced validation methods

For the crowdsourced validation exercises, we recruit participants on Mechanical Turk, following the approach recommended by Ying, Montgomery and Stewart (2022). We restrict participation to workers with Master Qualification, which is an invitation-only status awarded by Amazon to high-performing workers. To acquire this qualification, workers have to maintain a high approval rating, high volume of work, and long tenure. Before beginning the exercise, each worker is shown three example tasks (Figure A7). Respondents who fail to answer at least two of these correctly are removed from the sample.

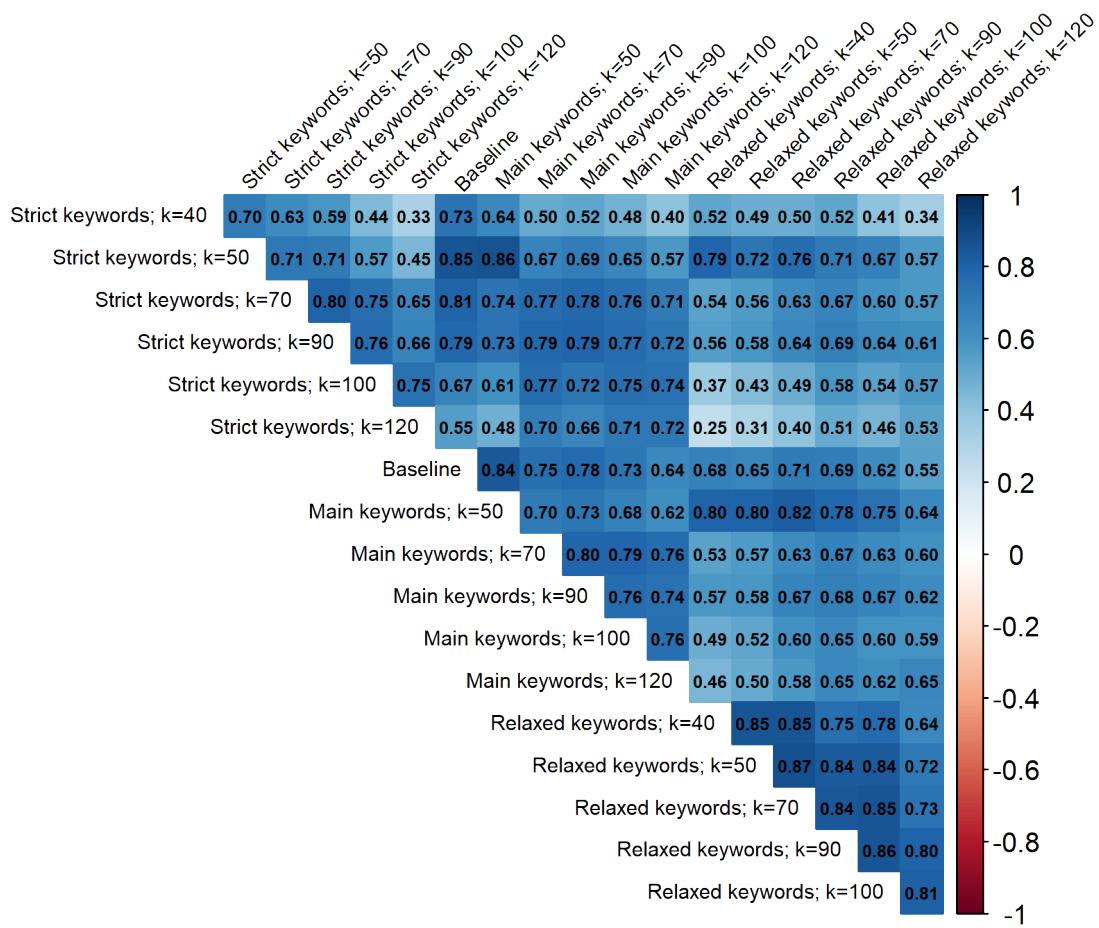


Figure A5: Topic share correlations for trade topic across models with alternative k's and keyword lists.

Trade topic share

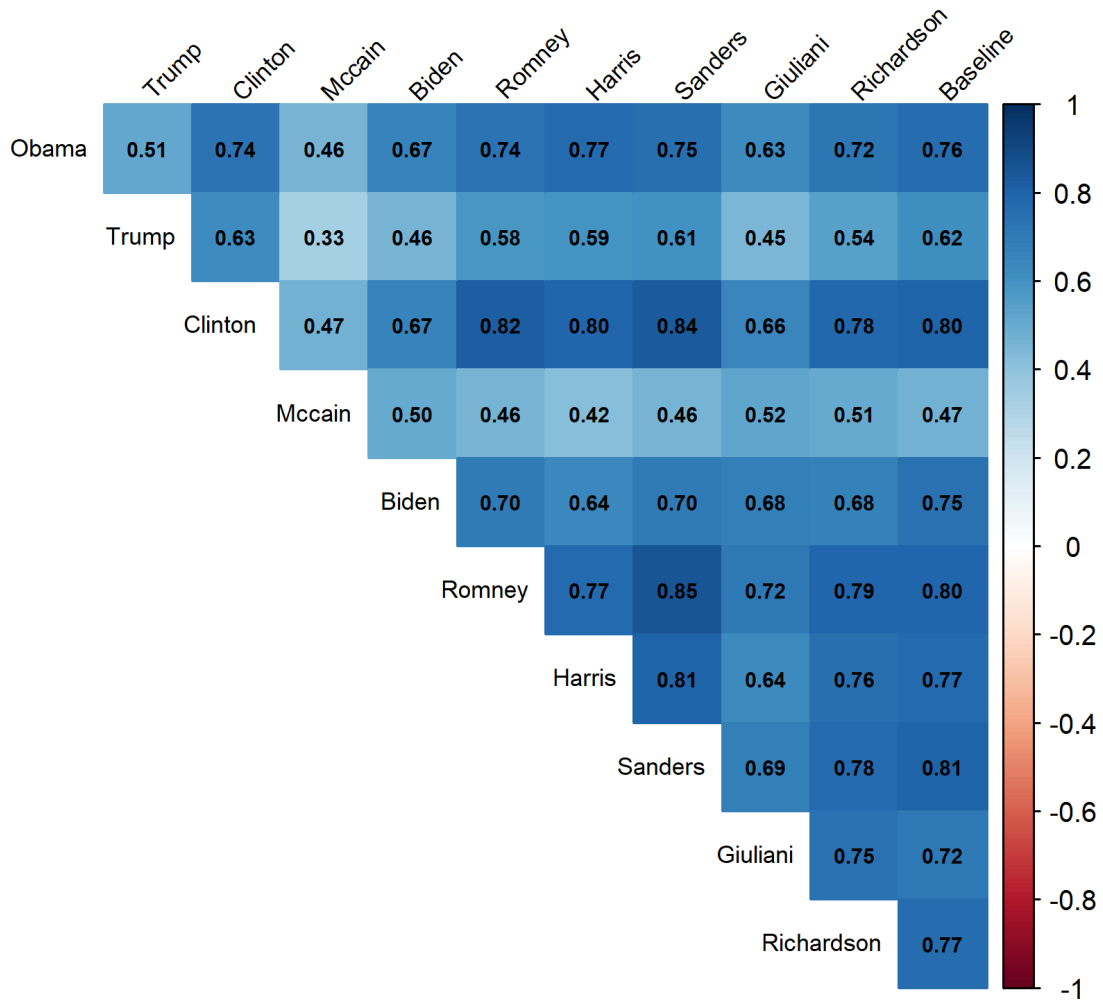


Figure A6: Topic share correlations across leave-one-author-out models. Name on each row and column represents the excluded author.

Table A3: Alternative keyword sets used to estimate labeled topic proportions

Keyword list	Keywords
	<i>Immigration</i>
Strict	alien, amnesty, asylum, border, deport, ice, illegal, immigr, refuge, sanctuari, vet, visa
Main	alien, amnesty, asylum, border, citizen, crime, deport, document, entri, famili, ice, illeg, immigr, legal, mexican, mexico, protect, sanctuari, vet, visa
Relaxed	alien, amnesty, asylum, border, citizen, crime, deport, document, entri, exit, famili, foreign, ice, illeg, immigr, legal, mexican, mexico, protect, sanctuari, smuggle, undocu, vet, visa, wall
	<i>Trade</i>
Strict	agreement, buy, deal, demand, factor, import, nafta, sell, steel, suppl, tariff, trade, unfair
Main	agreement, buy, china, deal, demand, factor, fair, import, nafta, product, sell, steel, suppl, tariff, trade, unfair
Relaxed	agreement, auto, buy, china, deal, deficit, demand, fair, factor, import, job, manufactur, mexic, nafta, overse, produc, product, servic, ship, sell, steel, suppl, tariff, trade, unfair, worker

Notes: The main keyword sets include the union of words that our two research assistants consider to appear frequently and exclusively in each topic. The “relaxed” set includes words that are frequently associated with each topic but not necessarily exclusive to it. The “strict” set includes only the intersection of words identified by both research assistants as frequent and exclusive.

Table A4: Top 5 speeches with highest trade topic share, by party

Party	Candidate	Title	Trade topic share
Dem	Edwards	Remarks in Cedar Rapids, Iowa	0.276
Dem	Obama	Remarks at the National Gypsum Company in Lorain, Ohio	0.260
Dem	Obama	Remarks to the Alliance for American Manufacturing in Pittsburgh, PA	0.249
Dem	Biden	Remarks by the Vice President at a Campaign Event in Davenport, Iowa	0.242
Dem	Biden	Remarks by Vice President Joe Biden in Warren, Michigan	0.234
Rep	Trump	Remarks to the Detroit Economic Club	0.331
Rep	Trump	Remarks at a Rally at Canton Memorial Civic Center in Canton, Ohio	0.324
Rep	Trump	Remarks at Campaign Rally in York, Pennsylvania	0.311
Rep	Trump	Remarks at the Roberts Centre in Wilmington, Ohio	0.304
Rep	Trump	Remarks at the Suburban Collection Showplace in Novi, Michigan	0.299

Each respondent who passes our skill check is asked to complete ten tasks, with one attention check embedded in the sequence. For each task, we first randomly draw a model from the batch’s available models, then randomly assign a task that model’s randomly-generated task pool (1,000 unique tasks for each model in batch 1, and 200 unique tasks in batch 2).

At the end of the exercise, we include a free-text question asking respondents what they think the main word sets they have read represent. The question requires information beyond the

Table A5: Top words for trade topic from models with alternative k’s and keyword lists

Keyword list	K	Top words
strict	40	trade, nafta, steel, michigan, sell, manufactur
strict	50	trade, nafta, manufactur, suppli, steel, unfair
strict	70	agreement, steel, tariff, deal, nafta, trade
strict	90	steel, nafta, simpl, sell, tariff, unfair
strict	100	els, simpl, nafta, unfair, put, close
strict	120	first, deal, nafta, els, sell, announc
main	40	nafta, deal, manufactur, trade, michigan, factori
main	50	sell, tariff, factori, nafta, trade, manufactur
main	70	trade, steel, deal, factori, product, unfair
main	90	trade, agreement, tariff, factori, nafta, simpl
main	100	trade, tariff, china, steel, nafta, six
main	120	trade, product, simpl, close, factori, away
relaxed	40	manufactur, produc, ship, worker, factori, fair
relaxed	50	manufactur, factori, ship, trade, product, deficit
relaxed	70	manufactur, product, auto, sell, steel, nafta
relaxed	90	trade, manufactur, sell, ship, product, unfair
relaxed	100	product, manufactur, worker, sell, auto, trade
relaxed	120	product, manufactur, sell, factori, already, auto

Table A6: Top words for trade topic from leave-one-author-out models

Author excluded	Top words
Obama	china, factori, tariff, nafta, auto, export
Trump	sell, deficit, product, emiss, innov, effici
Clinton H	nafta, trade, steel, export, sell, michigan
Mccain	gonna, wanna, sir, tariff, nafta, steel
Biden	tariff, china, deal, michigan, mexico, trade
Romney	tariff, factori, nafta, trade, steel, fair
Harris	steel, trade, china, tariff, deal, nafta
Sanders	sell, china, steel, trade, nafta, manufactur
Giuliani	tariff, nafta, china, manufactur, factori, michigan
Richardson	china, tariff, sell, manufactur, unfair, steel

immediate question and serves as an additional safeguard against low-effort or chatbot-assisted responses. We manually screen these answers and remove respondents whose explanations are gibberish or do not reflect human-level understanding of the prompt. A total of 51 respondents successfully completed batch one and 151 completed batch two. Participants were compensated up to 1 USD for completing the full set of tasks.

Review the four word sets below and choose the one whose overall theme differs from the other three. Each set contains four words. Some words may appear in shortened forms due to stemming (e.g., stori for “story” or “stories”) and abbreviations may appear in lowercase (e.g., ice for “ICE”). These forms may look incomplete but represent the intended meaning. Focus on the general topic of each set and select the one that does not belong.

You will be presented with three examples. You must get the majority of them correct in order to proceed.

Example 1: Which of these word sets does not belong?

Set 1: apple orange fruit health

Set 2: tree pear blossom spring

Set 3: politi vote citizen campaign

Set 4: crop grow farm plant

Set 1

Set 2

Set 3

Set 4

Figure A7: An example R4WSI task presented to respondent. The last two paragraphs are removed in the tasks shown during respondents’ actual exercise.

Table A7: Mechanical Turk crowdsourced R4WSI accuracy results, by batch and model.

Model	No. of tasks	Accuracy
Batch 1 (trade vs. immigration topics)		
Immigration (baseline keywords, k=40)	260	0.735
Trade (baseline keywords, k=40)	250	0.888
Batch 2 (trade topic variants)		
Trade (strict keywords, k=40)	148	0.791
Trade (strict keywords, k=50)	172	0.785
Trade (strict keywords, k=70)	154	0.818
Trade (baseline keywords, k=40)	169	0.870
Trade (baseline keywords, k=50)	168	0.839
Trade (baseline keywords, k=70)	176	0.767
Trade (relaxed keywords, k=40)	173	0.821
Trade (relaxed keywords, k=50)	157	0.764
Trade (relaxed keywords, k=70)	193	0.772

G Sensitivity to KeyATM hyperparameters

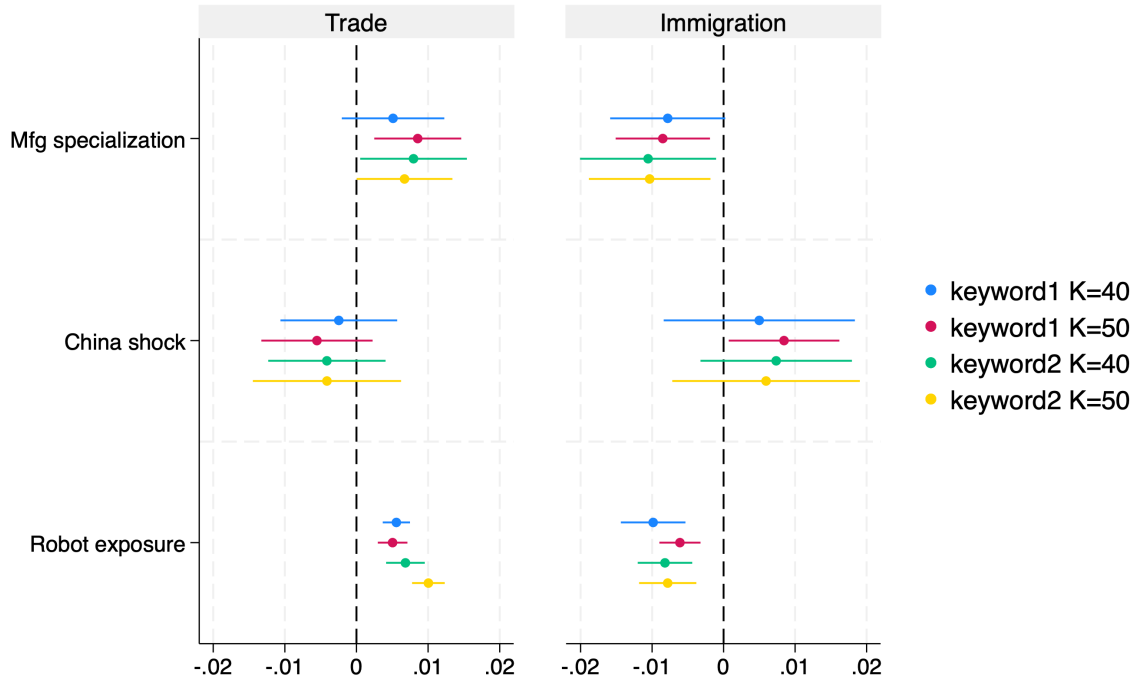


Figure A8: Sensitivity to KeyATM Keyword List and Number of Clusters

Notes: Error bars denote 95% confidence intervals calculated from state-clustered standard errors. All regressions are weighted by the number of visits in a CZ.

Table A8: Second Stage: Trade Messages; kw1 k40

	Dependent Variables:					
	Trade Topic			Immigration Topic		
	(1)	(2)	(3)	(4)	(5)	(6)
Standardized values of $\text{prob}_{i\text{mmi}_k w1_k 40}$	0.051*** (0.003)	0.040*** (0.002)	0.040*** (0.002)			
China shock	-0.001 (0.001)	-0.001 (0.002)	-0.002 (0.004)	0.002 (0.002)	0.004* (0.002)	0.005 (0.007)
Robot exposure	0.005*** (0.001)	0.006*** (0.001)	0.006*** (0.001)	-0.009*** (0.001)	-0.008*** (0.001)	-0.010*** (0.002)
Mfg specialization	0.005** (0.002)	0.004 (0.003)	0.005 (0.004)	-0.004 (0.004)	-0.010*** (0.003)	-0.008* (0.004)
Mfg specialization \times Mfg specialization	-0.003* (0.002)	-0.003 (0.002)	-0.003* (0.002)	0.007* (0.004)	0.010*** (0.003)	0.010*** (0.003)
Rep		0.024** (0.009)	0.025*** (0.009)		0.024 (0.016)	0.024 (0.015)
CZ ideology		-0.003 (0.005)	-0.003 (0.005)		0.034*** (0.011)	0.034*** (0.011)
Rep \times CZ ideology		-0.002 (0.005)	-0.002 (0.005)		-0.020 (0.014)	-0.019 (0.013)
CZ MoV		0.003 (0.003)	0.003 (0.003)		-0.001 (0.006)	0.000 (0.006)
State MoV (pres)		-0.011** (0.004)	-0.011*** (0.004)		0.008 (0.009)	0.009 (0.009)
ln(pop)		-0.006 (0.004)	-0.006 (0.004)		0.011 (0.008)	0.012 (0.008)
State MoV (pres) \times ln(pop)		0.007*** (0.002)	0.007*** (0.002)		-0.007 (0.004)	-0.008* (0.004)
Δ high-skill immigrant pop. share		0.000 (0.006)	0.000 (0.006)		-0.018** (0.008)	-0.019** (0.008)
Δ low-skill immigrant pop. share		-0.003 (0.003)	-0.003 (0.003)		0.003 (0.006)	0.003 (0.006)
Mean days to election		-0.006** (0.002)	-0.006*** (0.002)		0.023*** (0.007)	0.023*** (0.006)
year=2008			-0.008* (0.004)			-0.135*** (0.013)
year=2016			0.020*** (0.006)			-0.145*** (0.012)
Standardized values of $\text{prob}_{t\text{rade}_k w1_k 40}$				0.101*** (0.007)	0.074*** (0.006)	0.075*** (0.006)
constant	0.055*** (0.003)	0.053*** (0.008)	0.050*** (0.009)	0.073*** (0.004)	0.067*** (0.019)	0.171*** (0.024)
N	609	413	413	609	413	413
R2	0.626	0.652	0.651	0.698	0.738	0.738
2SLS			3547			2773
chi2			3547			2773

Notes: State clustered standard errors in parentheses. All continuous covariates are z-score standardized. All regressions are weighted by the number of speeches in a CZ. *p<0.1; **p<0.05; ***p<0.01.

Table A9: Second Stage: Trade Messages; kw1 k50

	Dependent Variables:					
	Trade Topic			Immigration Topic		
	(1)	(2)	(3)	(4)	(5)	(6)
Standardized values of $\text{prob}_i \text{mmi}_k w_{1k} 50$	0.044*** (0.003)	0.036*** (0.002)	0.037*** (0.002)			
China shock	-0.001 (0.001)	-0.002* (0.001)	-0.006 (0.004)	0.002* (0.001)	0.005** (0.002)	0.008** (0.004)
Robot exposure	0.005*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	-0.006*** (0.001)	-0.005*** (0.001)	-0.006*** (0.001)
Mfg specialization	0.005** (0.002)	0.007*** (0.002)	0.009*** (0.003)	-0.002 (0.003)	-0.008*** (0.003)	-0.008** (0.003)
Mfg specialization \times Mfg specialization	-0.003 (0.002)	-0.004** (0.002)	-0.005** (0.002)	0.004 (0.003)	0.007*** (0.002)	0.007*** (0.002)
Rep		0.010 (0.010)	0.010 (0.010)		0.036*** (0.012)	0.035*** (0.012)
CZ ideology		-0.002 (0.005)	-0.002 (0.005)		0.020** (0.008)	0.021*** (0.008)
Rep \times CZ ideology		-0.007 (0.005)	-0.007 (0.005)		-0.007 (0.010)	-0.007 (0.010)
CZ MoV		0.004 (0.003)	0.004 (0.003)		-0.001 (0.005)	-0.000 (0.004)
State MoV (pres)		-0.008** (0.004)	-0.008** (0.004)		0.004 (0.007)	0.005 (0.007)
ln(pop)		-0.005 (0.004)	-0.005 (0.004)		0.004 (0.006)	0.005 (0.006)
State MoV (pres) \times ln(pop)		0.007*** (0.002)	0.007*** (0.002)		-0.005* (0.003)	-0.006* (0.003)
Δ high-skill immigrant pop. share		0.002 (0.005)	0.002 (0.005)		-0.014*** (0.004)	-0.015*** (0.004)
Δ low-skill immigrant pop. share		-0.000 (0.003)	-0.001 (0.003)		-0.001 (0.003)	-0.000 (0.003)
Mean days to election		-0.007*** (0.002)	-0.007*** (0.002)		0.015*** (0.005)	0.015*** (0.004)
year=2008			-0.012*** (0.004)			-0.088*** (0.009)
year=2016			0.011* (0.006)			-0.088*** (0.008)
Standardized values of $\text{prob}_i \text{rade}_k w_{1k} 50$				0.065*** (0.006)	0.045*** (0.004)	0.046*** (0.004)
constant	0.056*** (0.003)	0.061*** (0.008)	0.063*** (0.009)	0.049*** (0.003)	0.040*** (0.013)	0.106*** (0.017)
N	609	413	413	609	413	413
R2	0.578	0.607	0.605	0.655	0.726	0.725
2SLS			1164			2722
chi2			1164			2722

Notes: State clustered standard errors in parentheses. All continuous covariates are z-score standardized. All regressions are weighted by the number of speeches in a CZ. *p<0.1; **p<0.05; ***p<0.01.

Table A10: Second Stage: Trade Messages; kw2 k40

	Dependent Variables:					
	Trade Topic			Immigration Topic		
	(1)	(2)	(3)	(4)	(5)	(6)
Standardized values of $\text{prob}_i \text{mmi}_k w_{2k} 40$	0.046*** (0.004)	0.041*** (0.003)	0.041*** (0.003)			
China shock	-0.001 (0.001)	-0.000 (0.002)	-0.004 (0.004)	0.002 (0.001)	0.002 (0.002)	0.007 (0.005)
Robot exposure	0.006*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	-0.009*** (0.001)	-0.007*** (0.001)	-0.008*** (0.002)
Mfg specialization	0.005** (0.002)	0.006** (0.003)	0.008** (0.004)	-0.004 (0.003)	-0.009** (0.004)	-0.011** (0.005)
Mfg specialization \times Mfg specialization	-0.005** (0.002)	-0.006*** (0.002)	-0.006*** (0.002)	0.007** (0.003)	0.009*** (0.003)	0.009*** (0.003)
Rep		0.003 (0.008)	0.004 (0.008)		0.051*** (0.012)	0.050*** (0.011)
CZ ideology		-0.002 (0.006)	-0.002 (0.006)		0.018** (0.008)	0.019** (0.007)
Rep \times CZ ideology		-0.009** (0.004)	-0.009* (0.004)		0.003 (0.009)	0.002 (0.009)
CZ MoV		0.003 (0.003)	0.003 (0.003)		-0.000 (0.004)	-0.000 (0.004)
State MoV (pres)		-0.014** (0.005)	-0.014*** (0.005)		0.012** (0.006)	0.013** (0.006)
ln(pop)		-0.003 (0.005)	-0.004 (0.005)		0.004 (0.006)	0.005 (0.005)
State MoV (pres) \times ln(pop)		0.009*** (0.002)	0.009*** (0.002)		-0.009*** (0.003)	-0.009*** (0.003)
Δ high-skill immigrant pop. share		-0.001 (0.004)	-0.000 (0.004)		-0.008** (0.004)	-0.008** (0.004)
Δ low-skill immigrant pop. share		0.004 (0.003)	0.003 (0.003)		-0.007* (0.004)	-0.006* (0.004)
Mean days to election		-0.009*** (0.002)	-0.009*** (0.002)		0.016*** (0.004)	0.015*** (0.004)
year=2008			-0.016*** (0.006)			-0.076*** (0.007)
year=2016			-0.006 (0.005)			-0.055*** (0.006)
Standardized values of $\text{prob}_i \text{rade}_k w_{2k} 40$				0.070*** (0.005)	0.050*** (0.005)	0.051*** (0.005)
constant	0.055*** (0.003)	0.054*** (0.008)	0.062*** (0.010)	0.057*** (0.004)	0.049*** (0.011)	0.100*** (0.013)
N	609	413	413	609	413	413
R2	0.637	0.663	0.661	0.687	0.752	0.751
2SLS			1106			2203
chi2			1106			2203

Notes: State clustered standard errors in parentheses. All continuous covariates are z-score standardized. All regressions are weighted by the number of speeches in a CZ. *p<0.1; **p<0.05; ***p<0.01.

Table A11: Second Stage: Trade Messages; kw2 k50

	Dependent Variables:					
	Trade Topic			Immigration Topic		
	(1)	(2)	(3)	(4)	(5)	(6)
Standardized values of $\text{prob}_i \text{mmi}_k w_{2k50}$	0.024*** (0.002)	0.023*** (0.003)	0.023*** (0.003)			
China shock	-0.001 (0.002)	-0.002 (0.001)	-0.004 (0.005)	0.002 (0.002)	0.002 (0.003)	0.006 (0.007)
Robot exposure	0.008*** (0.001)	0.010*** (0.001)	0.010*** (0.001)	-0.008*** (0.002)	-0.006*** (0.002)	-0.008*** (0.002)
Mfg specialization	0.006** (0.003)	0.006*** (0.002)	0.007** (0.003)	-0.006 (0.004)	-0.010** (0.004)	-0.010** (0.004)
Mfg specialization \times Mfg specialization	-0.003 (0.003)	-0.005** (0.002)	-0.005** (0.002)	0.004 (0.003)	0.007*** (0.002)	0.007*** (0.002)
Rep		-0.009 (0.008)	-0.008 (0.008)		0.069*** (0.010)	0.067*** (0.010)
CZ ideology		0.006 (0.005)	0.005 (0.005)		-0.000 (0.006)	0.000 (0.005)
Rep \times CZ ideology		-0.014*** (0.005)	-0.014*** (0.005)		0.014* (0.008)	0.014* (0.008)
CZ MoV		0.007** (0.003)	0.007*** (0.003)		-0.005* (0.003)	-0.005* (0.003)
State MoV (pres)		-0.010** (0.004)	-0.010** (0.004)		0.002 (0.005)	0.003 (0.004)
ln(pop)		-0.002 (0.004)	-0.003 (0.004)		-0.001 (0.005)	0.001 (0.004)
State MoV (pres) \times ln(pop)		0.005** (0.002)	0.005*** (0.002)		0.000 (0.002)	-0.001 (0.002)
Δ high-skill immigrant pop. share		-0.001 (0.005)	-0.000 (0.005)		-0.005 (0.003)	-0.006 (0.004)
Δ low-skill immigrant pop. share		-0.001 (0.003)	-0.002 (0.003)		-0.002 (0.003)	-0.002 (0.003)
Mean days to election		-0.004** (0.002)	-0.004** (0.002)		0.005* (0.003)	0.004* (0.002)
year=2008			-0.014*** (0.005)			-0.048*** (0.005)
year=2016			-0.010** (0.004)			-0.006 (0.006)
Standardized values of $\text{prob}_i \text{rade}_k w_{2k50}$				0.041*** (0.007)	0.028*** (0.005)	0.030*** (0.005)
constant	0.042*** (0.004)	0.056*** (0.008)	0.064*** (0.009)	0.054*** (0.004)	0.028*** (0.008)	0.051*** (0.009)
N	609	413	413	609	413	413
R2	0.461	0.534	0.532	0.487	0.643	0.638
2SLS			820			2749
chi2			820			2749

Notes: State clustered standard errors in parentheses. All continuous covariates are z-score standardized. All regressions are weighted by the number of speeches in a CZ. *p<0.1; **p<0.05; ***p<0.01.

H Partisan Heterogeneity

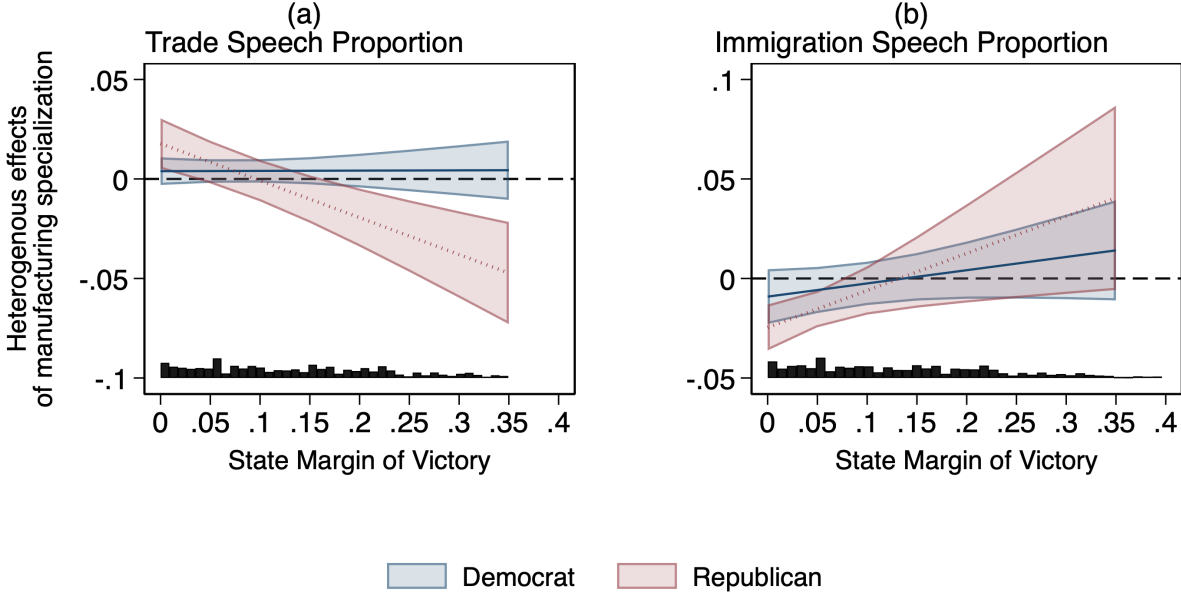


Figure A9: Heterogeneous Speech Responsiveness to Manufacturing Specialization

Notes: Error bars denote 95% confidence intervals calculated from state-clustered standard errors.

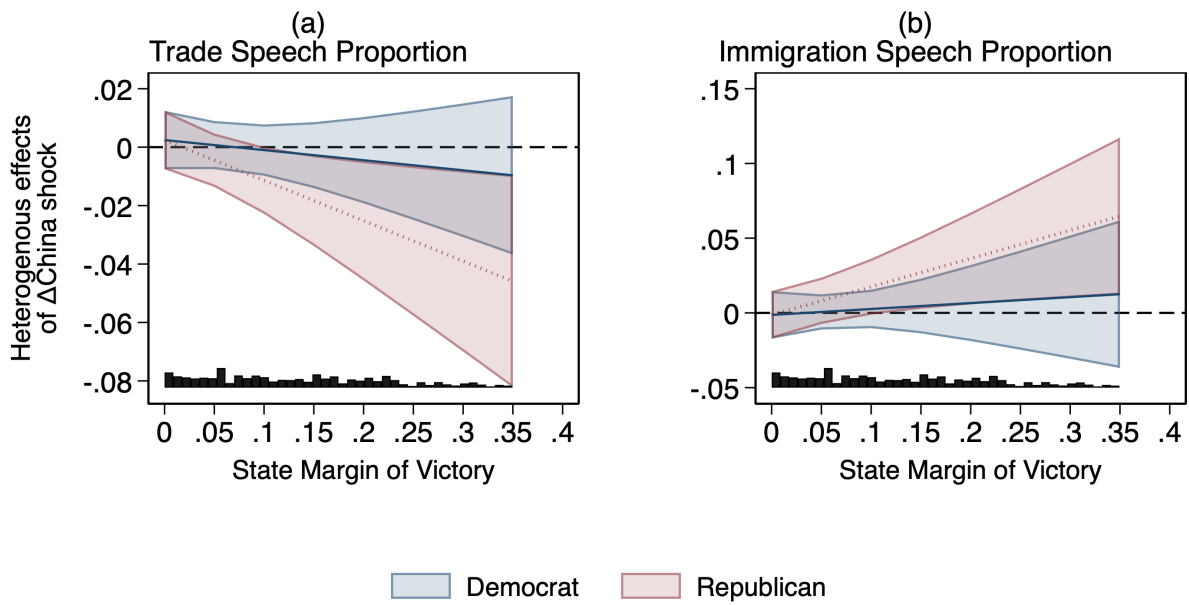


Figure A10: Heterogeneous Speech Responsiveness to Manufacturing Specialization

Notes: Error bars denote 95% confidence intervals calculated from state-clustered standard errors.

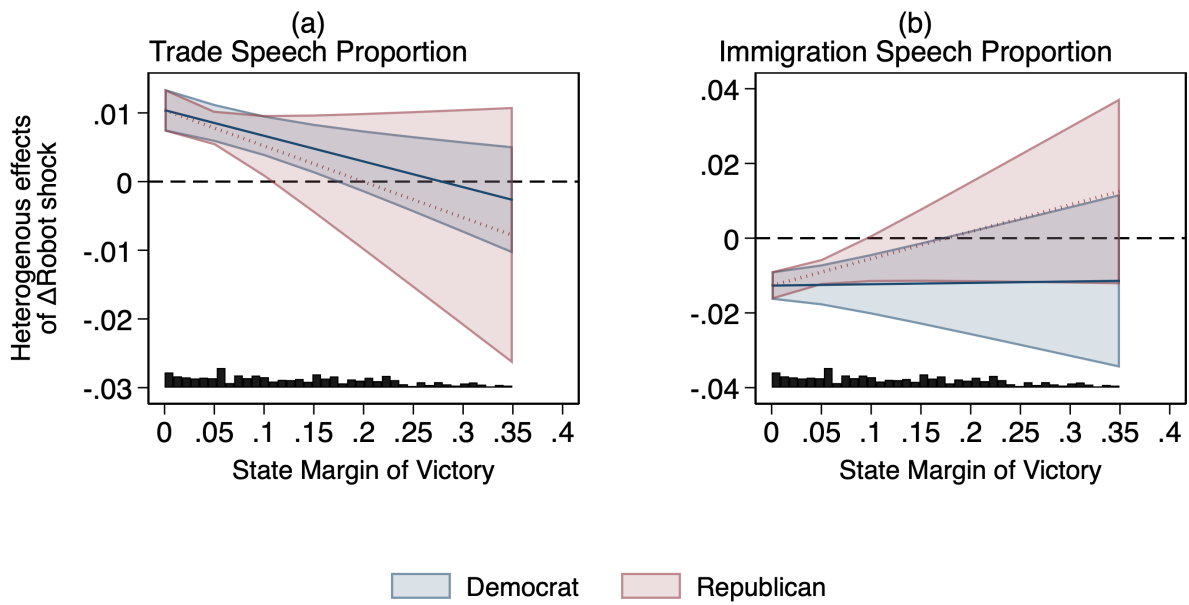


Figure A11: Heterogeneous Speech Responsiveness to Manufacturing Specialization

Notes: Error bars denote 95% confidence intervals calculated from state-clustered standard errors.

I Campaign Selection

This section explores two selection processes using data from all commuting zones in the continental US: the frequency that an area is visited by a campaign, and the frequency that an area is visited and receives a campaign speech. We separate visits from speeches to cover the possibility that our speech dataset contains unplanned speeches that lack an official transcript for the American Presidency Project to archive.

To explore this selection process, we supplement our speech data with additional information on candidate appearances. Specifically, we incorporate the 2008–2024 version of Devine’s Campaign Visits Database (CVD) (Devine, 2025), which records 1,440 visits by presidential and vice presidential candidates during our analysis period.¹⁹ When merged with the American Presidency Project (APP) data, we identify a total of 2,167 geolocated campaign visits.

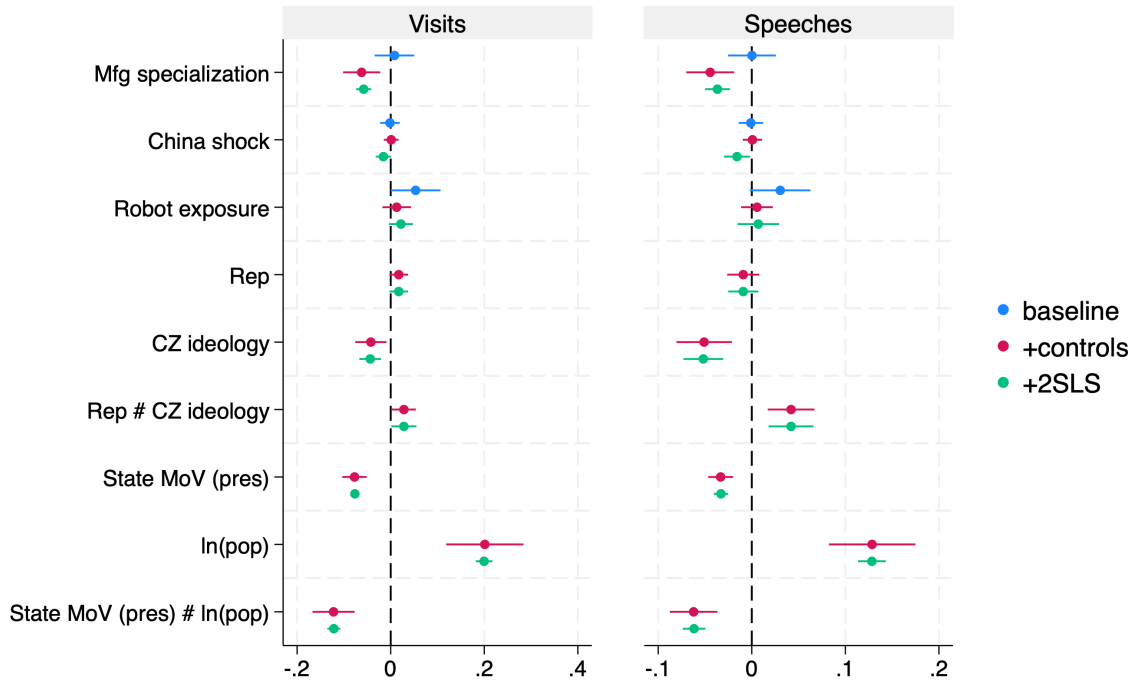


Figure A12: Determinants of Visits and Speeches

Notes: Error bars denote 95% confidence intervals calculated from state-clustered standard errors. The full regression output can be found in Appendix Table A13.

¹⁹Including multiple visits to the different sites within the same commuting zone, which we then collapse into one observation

Of these, 282 observations are exact matches across both datasets. An additional 188 match on speaker, date, and state, but not city. The remaining discrepancies highlight the complementary nature of the two sources: 634 speeches appear in the APP but not in the CVD, while 1,063 visits are recorded in the CVD but lack corresponding transcripts in the APP. The unmatched APP speeches often involve non-presidential speakers, events in candidates' home regions (e.g., Biden's speeches in Wilmington), or campaign announcements, which the CVD does not classify as visits. Conversely, many CVD-only entries reflect informal or conversational stops for which no official transcript exists, or reflect gaps in the APP archive.

Using the combined dataset, we construct several measures of campaign presence at the commuting zone–party–year level: the total number of visits, the number of days between the election and the first visit, the number of days between the election and the last visit, and the duration between the first and last visit. These indicators serve as proxies for the strategic importance of each commuting zone to the campaign.

The main driver of campaign visits and speech frequency is the location of large numbers of swing voters—captured by the interaction between state margin of victory and CZ log population. The second biggest driver is a combination of the campaign's party and the ideology of the CZ. In particular, Democrats prefer to visit and give speeches in ideologically liberal CZs. Republicans, by comparison, do not have a significant preference over the ideological leanings of CZs.

When combining these insights with our main analysis of speech issue content, we see a larger picture of campaigns that makes intuitive sense. Where campaigns visit and deliver speeches is primarily a function of where they need to win votes. Subsequently, which policies they decide to emphasize in those speeches is determined largely by the interaction of local interests and party competition.

J Pre-Trend Tests

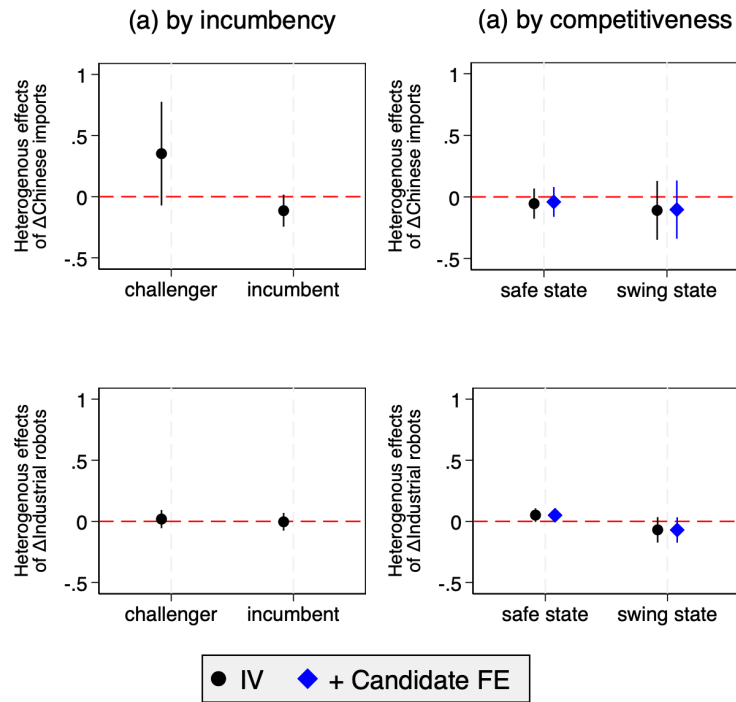


Figure A13: Effects of Protectionist Interests on Pre-Treatment Trade Topic Proportion

Notes: Protectionist interests are measured (in z-score standardized units) by manufacturing specialization in (a), instrumented exposure to Chinese imports in (b), and instrumented exposure to industrial automation in (c). The y-axes denote the marginal effects of these trade interests on a speech's trade topic proportion, in z-score standardized units. Error bars denote 95% confidence intervals calculated from state-clustered standard errors. Estimates come from Table A12. For the panel on incumbency, the lack of variance in incumbency status makes marginal effects with candidate fixed effects non-estimable.

Table A12: Pre-Trend Tests: Trade Topic Proportions in Speeches from 1992, 1996, and 2000

Dependent Variable: 1992 to 2000 trade topic proportion (standardized)						
	(1)	(2)	(3)	(4)	(5)	(6)
Import shock	0.352 (0.216)	-0.109 (0.122)	-0.103 (0.121)			
incumbent × Import shock	-0.467** (0.231)					
safe state × Import shock		0.055 (0.123)	0.062 (0.120)			
Automation shock				0.019 (0.038)	-0.069 (0.053)	-0.070 (0.053)
incumbent × Automation shock				-0.022 (0.057)		
safe state × Automation shock					0.121** (0.051)	0.120** (0.048)
safe state	0.025 (0.094)	0.054 (0.085)	0.073 (0.087)	0.058 (0.079)	0.033 (0.077)	0.051 (0.078)
incumbent	-0.027 (0.066)	-0.112* (0.066)	-0.135** (0.067)	-0.104 (0.077)	-0.081 (0.082)	-0.107 (0.081)
Republican	-0.922*** (0.126)	-0.767*** (0.116)	-1.112*** (0.277)	-0.824*** (0.095)	-0.817*** (0.099)	-1.191*** (0.262)
Third party	-0.108 (0.068)	-0.130** (0.051)	-0.414* (0.250)	-0.134** (0.064)	-0.112* (0.063)	-0.424* (0.251)
Mfg specialization	0.021 (0.074)	0.054 (0.093)	0.054 (0.091)			
constant	-0.317** (0.141)	-0.180 (0.150)	0.085 (0.272)	-0.226 (0.145)	-0.206 (0.131)	0.095 (0.249)
Candidate FE			✓			✓
N	408	408	408	408	408	408
R2	0.105	0.113	0.122	0.122	0.131	0.141
adj. R2	0.066	0.074	0.079	0.086	0.095	0.101

Notes: State clustered standard errors in parentheses. The dependent variable and continuous covariates are z-score standardized. All specifications include election period and Census region fixed effects. *p<0.1; **p<0.05; ***p<0.01.

K Analysis of All 40 Topics

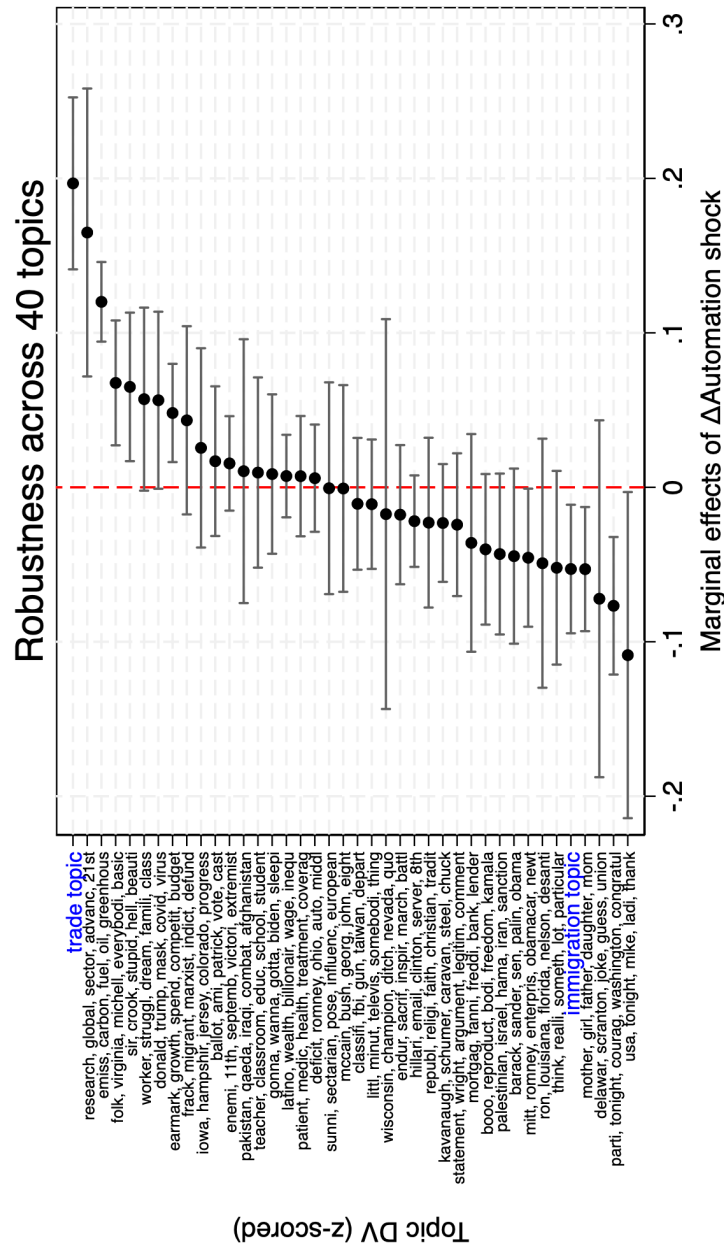


Figure A14: Placebo Tests for Out-Group Anxieties: Immigration Topic Proportions

Notes: The y-axes denote the marginal effect of instrumented automation exposure on a speech's topic proportion across 40 unique topics, in z-score standardized units. The estimate for the trade topic comes from model (6) in Table A14 with all other models using an identical specification. All topics were measured using KeyATM while those bolded in blue (trade and immigration) specifically used keywords. Topics produced without keywords are left un-labeled and denoted by their top-5 FREX words that distinguish the topic. Error bars denote 95% confidence intervals calculated from state-clustered standard errors.

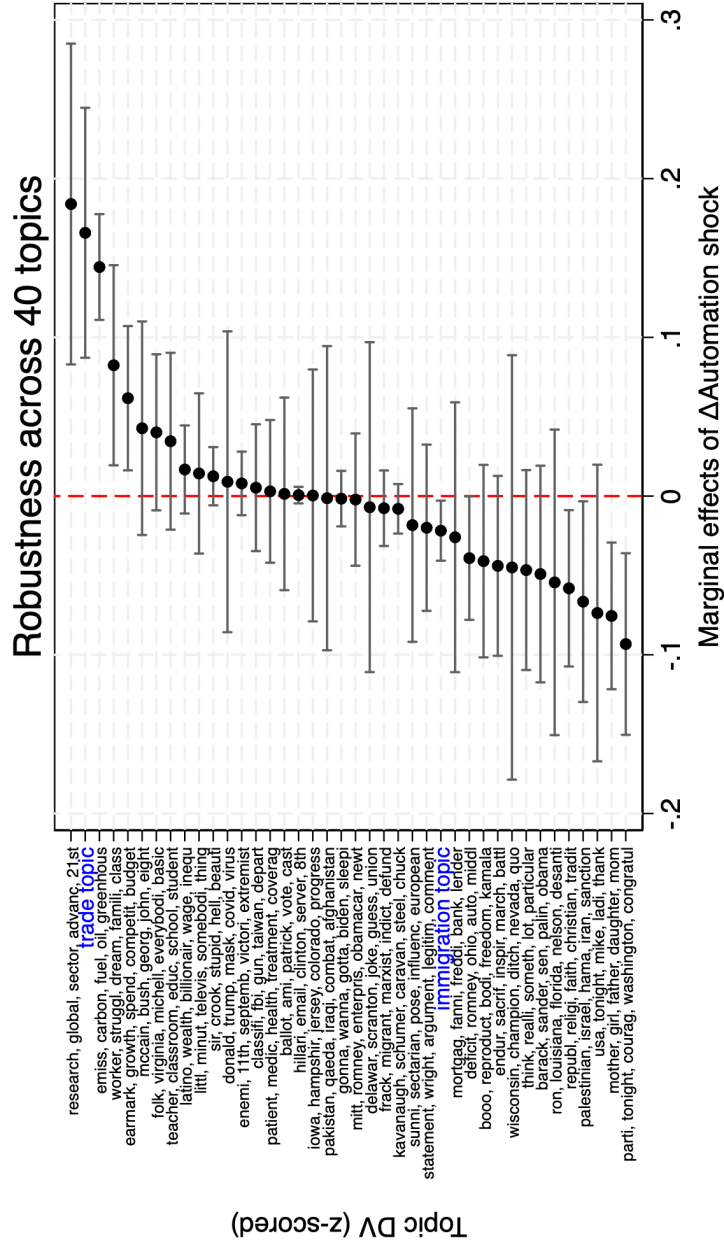


Figure A15: Placebo Tests for Out-Group Anxieties: Immigration Topic Proportions

Notes: The y-axes denote the marginal effect of instrumented automation exposure on a speech's topic proportion across 40 unique topics, in z-score standardized units. All topics were measured using KeyATM while those bolded in blue (trade and immigration) specifically used keywords. Topics produced without keywords are left un-labeled and denoted by their top-5 FREX words that distinguish the topic. Error bars denote 95% confidence intervals calculated from state-clustered standard errors.

L Supplemental Tables

Table A13: First Stage: Visits and Speeches

	Dependent Variables:					
	N Visits			N Speeches		
	(1)	(2)	(3)	(4)	(5)	(6)
China shock	-0.002 (0.010)	0.001 (0.008)	-0.016* (0.008)	-0.001 (0.007)	0.001 (0.005)	-0.016** (0.007)
Robot exposure	0.053* (0.026)	0.013 (0.015)	0.022* (0.013)	0.030* (0.016)	0.006 (0.008)	0.007 (0.011)
Mfg specialization	0.008 (0.021)	-0.062*** (0.020)	-0.058*** (0.008)	0.000 (0.013)	-0.044*** (0.013)	-0.037*** (0.007)
Mfg specialization ²	-0.029*** (0.007)	0.008 (0.006)	0.009*** (0.003)	-0.018*** (0.004)	0.007 (0.004)	0.007*** (0.002)
Rep		0.017* (0.010)	0.017* (0.010)		-0.009 (0.009)	-0.009 (0.008)
CZ ideology		-0.042** (0.017)	-0.044*** (0.012)		-0.051*** (0.015)	-0.052*** (0.011)
Rep × CZ ideology		0.028** (0.013)	0.028** (0.014)		0.042*** (0.012)	0.042*** (0.012)
CZ MoV		-0.001 (0.013)	-0.001 (0.006)		0.008 (0.010)	0.008 (0.005)
State MoV (pres)		-0.077*** (0.013)	-0.077*** (0.005)		-0.033*** (0.007)	-0.033*** (0.004)
ln(pop)		0.201*** (0.041)	0.200*** (0.009)		0.129*** (0.023)	0.128*** (0.008)
State MoV (pres) × ln(pop)		-0.122*** (0.022)	-0.122*** (0.007)		-0.062*** (0.013)	-0.062*** (0.006)
Δ high-skill immigrant pop. share		-0.003 (0.004)	-0.003 (0.003)		-0.004 (0.003)	-0.003 (0.002)
Δ low-skill immigrant pop. share		-0.003 (0.006)	-0.003 (0.003)		-0.002 (0.005)	-0.003 (0.002)
year=2008			0.096*** (0.014)			0.057*** (0.012)
year=2016			0.039*** (0.012)			0.007 (0.010)
constant	0.171*** (0.032)	0.133*** (0.017)	0.086*** (0.010)	0.104*** (0.017)	0.088*** (0.012)	0.065*** (0.008)
N	7210	4312	4312	7210	4312	4312
R2	0.029	0.369	0.368	0.020	0.252	0.250
2SLS			905			481
chi2			905			481

Notes: State clustered standard errors in parentheses. All continuous covariates are z-score standardized. *p<0.1; **p<0.05; ***p<0.01.

Table A14: Full Table: Responsiveness to Manufacturing Specialization

Dependent Variable: trade topic proportion (standardized)						
	(1)	(2)	(3)	(4)	(5)	(6)
Mfg specialization	0.094*** (0.034)	0.077** (0.033)				
Import shock			0.034 (0.025)	0.035 (0.036)		
Automation shock					0.176*** (0.034)	0.197*** (0.028)
Incumbent	-0.288*** (0.063)	0.017 (0.077)	-0.295*** (0.063)	0.005 (0.077)	-0.285*** (0.060)	0.022 (0.073)
Swing state	-0.098** (0.045)	-0.137*** (0.042)	-0.082** (0.041)	-0.127*** (0.045)	-0.077* (0.045)	-0.120*** (0.034)
Republican	0.841*** (0.090)		0.842*** (0.089)	0.677 (0.496)	0.823*** (0.083)	1.263*** (0.469)
Primary	-0.047 (0.081)	0.175* (0.089)	-0.040 (0.081)	0.191** (0.091)	-0.061 (0.079)	0.143* (0.084)
General	0.023 (0.074)	0.120* (0.062)	0.031 (0.072)	0.130** (0.062)	-0.004 (0.072)	0.083 (0.059)
ln(pop)	-0.030 (0.036)	-0.013 (0.037)	-0.053 (0.037)	-0.031 (0.035)	-0.081*** (0.024)	-0.064*** (0.021)
constant	-1.305*** (0.173)	0.004 (0.088)	-1.286*** (0.173)	-0.925 (0.569)	-1.211*** (0.162)	-1.940*** (0.473)
Specification	OLS	OLS	2SLS	2SLS	2SLS	2SLS
Candidate FE		✓		✓		✓
N	1365	1354	1365	1365	1365	1365
R2	0.324	0.492	0.321	0.491	0.337	0.507
adj. R2	0.314	0.469	0.311	0.463	0.327	0.481

Notes: State clustered standard errors in parentheses. The dependent variable and continuous covariates are z-score standardized. All specifications include election period and Census region fixed effects. *p<0.1; **p<0.05; ***p<0.01.

Table A15: Full Table: Heterogeneous Responsiveness to Manufacturing Specialization, By Incumbency

Dependent Variable: trade topic proportion (standardized)						
	(1)	(2)	(3)	(4)	(5)	(6)
Mfg specialization	0.180*** (0.043)	0.154*** (0.046)				
incumbent × Mfg specialization	-0.170*** (0.035)	-0.151*** (0.039)				
Import shock			0.107*** (0.023)	0.116*** (0.038)		
incumbent × Import shock			-0.137*** (0.037)	-0.150*** (0.026)		
Automation shock					0.250*** (0.047)	0.263*** (0.058)
incumbent × Automation shock					-0.150*** (0.044)	-0.129* (0.072)
incumbent	-0.289*** (0.048)	0.026 (0.062)	-0.295*** (0.059)	0.003 (0.077)	-0.283*** (0.055)	0.036 (0.062)
Republican	0.840*** (0.088)	0.997** (0.465)	0.843*** (0.089)	0.735 (0.475)	0.820*** (0.082)	1.588*** (0.497)
Primary	-0.033 (0.081)	0.184** (0.091)	-0.033 (0.079)	0.207** (0.090)	-0.041 (0.081)	0.151* (0.083)
General	0.044 (0.072)	0.138** (0.060)	0.041 (0.071)	0.146** (0.060)	0.012 (0.070)	0.092* (0.055)
swing state	-0.106** (0.043)	-0.143*** (0.043)	-0.095** (0.041)	-0.140*** (0.045)	-0.078* (0.046)	-0.120*** (0.034)
ln(pop)	-0.029 (0.034)	-0.012 (0.035)	-0.052 (0.037)	-0.029 (0.036)	-0.080*** (0.023)	-0.064*** (0.020)
constant	-0.498*** (0.108)	-0.451** (0.183)	-0.463*** (0.108)	-0.255 (0.178)	-0.406*** (0.101)	-0.951*** (0.196)
Specification	OLS	OLS	2SLS	2SLS	2SLS	2SLS
Candidate FE		✓		✓		✓
N	1365	1365	1365	1365	1365	1365
R2	0.331	0.498	0.321	0.492	0.342	0.510
adj. R2	0.321	0.471	0.311	0.464	0.332	0.483

Notes: State clustered standard errors in parentheses. The dependent variable and continuous covariates are z-score standardized. All specifications include election period and Census region fixed effects. *p<0.1; **p<0.05; ***p<0.01.

Table A16: Full Table: Heterogeneous Responsiveness to Manufacturing Specialization, By State Competitiveness

Dependent Variable: trade topic proportion (standardized)						
	(1)	(2)	(3)	(4)	(5)	(6)
Mfg specialization	0.104*** (0.033)	0.085** (0.035)				
safe state × Mfg specialization	-0.032 (0.046)	-0.024 (0.043)				
Import shock			0.065*** (0.016)	0.066** (0.030)		
safe state × Import shock			-0.122** (0.061)	-0.129*** (0.040)		
Automation shock					0.167*** (0.045)	0.183*** (0.041)
safe state × Automation shock					0.022 (0.065)	0.038 (0.049)
safe state	0.092* (0.049)	0.132*** (0.047)	0.053 (0.041)	0.095** (0.047)	0.078* (0.045)	0.123*** (0.034)
Republican	0.841*** (0.090)	0.763 (0.501)	0.847*** (0.090)	0.669 (0.469)	0.822*** (0.082)	1.353*** (0.495)
Primary	-0.047 (0.081)	0.174* (0.090)	-0.039 (0.080)	0.191** (0.090)	-0.062 (0.079)	0.144* (0.084)
General	0.022 (0.075)	0.119* (0.063)	0.025 (0.072)	0.123** (0.062)	-0.005 (0.072)	0.083 (0.059)
incumbent	-0.287*** (0.063)	0.019 (0.078)	-0.289*** (0.063)	0.010 (0.077)	-0.286*** (0.061)	0.017 (0.076)
ln(pop)	-0.029 (0.035)	-0.013 (0.037)	-0.047 (0.036)	-0.024 (0.035)	-0.081*** (0.024)	-0.063*** (0.021)
constant	-0.567*** (0.114)	-0.428* (0.230)	-0.541*** (0.106)	-0.391** (0.195)	-0.466*** (0.113)	-0.900*** (0.139)
Specification	OLS	OLS	2SLS	2SLS	2SLS	2SLS
Candidate FE		✓		✓		✓
N	1365	1365	1365	1365	1365	1365
R2	0.324	0.493	0.322	0.493	0.337	0.508
adj. R2	0.314	0.465	0.312	0.465	0.327	0.481

Notes: State clustered standard errors in parentheses. The dependent variable and continuous covariates are z-score standardized. All specifications include election period and Census region fixed effects. *p<0.1; **p<0.05; ***p<0.01.

Table A17: Immigration Placebo Table: Heterogeneous Responsiveness to Manufacturing Specialization, By Incumbency

Dependent Variable: trade topic proportion (standardized)						
	(1)	(2)	(3)	(4)	(5)	(6)
Mfg specialization	0.018 (0.037)	-0.039*** (0.012)				
incumbent × Mfg specialization	0.014 (0.037)	0.032* (0.018)				
Import shock			-0.012 (0.039)	-0.010 (0.013)		
incumbent × Import shock			0.046 (0.041)	0.026 (0.020)		
Automation shock					-0.094 (0.095)	-0.076** (0.030)
incumbent × Automation shock					-0.013 (0.082)	0.045* (0.023)
incumbent	0.043 (0.045)	0.373*** (0.058)	0.041 (0.045)	0.379*** (0.057)	0.036 (0.042)	0.369*** (0.058)
Republican	0.833*** (0.087)	0.964 (0.787)	0.833*** (0.086)	1.048 (0.744)	0.842*** (0.089)	0.770 (0.752)
Primary	-0.620*** (0.085)	-0.155** (0.076)	-0.619*** (0.084)	-0.163** (0.075)	-0.603*** (0.085)	-0.148** (0.074)
General	-0.621*** (0.103)	-0.309*** (0.081)	-0.620*** (0.101)	-0.312*** (0.080)	-0.595*** (0.099)	-0.298*** (0.079)
swing state	0.090 (0.087)	0.046 (0.043)	0.096 (0.085)	0.039 (0.042)	0.100 (0.080)	0.040 (0.040)
ln(pop)	-0.044* (0.023)	-0.005 (0.014)	-0.050** (0.022)	0.002 (0.013)	-0.038 (0.030)	0.009 (0.015)
constant	-0.310*** (0.109)	0.086 (0.086)	-0.303*** (0.109)	0.030 (0.079)	-0.326*** (0.110)	0.248* (0.132)
Specification	OLS	OLS	2SLS	2SLS	2SLS	2SLS
Candidate FE		✓		✓		✓
N	1365	1365	1365	1365	1365	1365
R2	0.567	0.859	0.568	0.859	0.566	0.859
adj. R2	0.560	0.851	0.561	0.851	0.560	0.851

Notes: State clustered standard errors in parentheses. The dependent variable and continuous covariates are z-score standardized. All specifications include election period and Census region fixed effects. *p<0.1; **p<0.05; ***p<0.01.

Table A18: Immigration Placebo Table: Heterogeneous Responsiveness to Manufacturing Specialization, By State Competitiveness

Dependent Variable: trade topic proportion (standardized)						
	(1)	(2)	(3)	(4)	(5)	(6)
Mfg specialization	0.020 (0.038)	-0.026* (0.013)				
safe state × Mfg specialization	0.015 (0.047)	0.010 (0.024)				
Import shock			0.019 (0.036)	0.014 (0.014)		
safe state × Import shock			-0.022 (0.063)	-0.038 (0.032)		
Automation shock					-0.086** (0.037)	-0.051*** (0.012)
safe state × Automation shock					-0.042 (0.096)	-0.005 (0.042)
safe state	-0.087 (0.086)	-0.043 (0.042)	-0.097 (0.089)	-0.047 (0.044)	-0.102 (0.083)	-0.040 (0.041)
Republican	0.832*** (0.087)	1.016 (0.770)	0.834*** (0.086)	1.056 (0.727)	0.843*** (0.089)	0.870 (0.741)
Primary	-0.619*** (0.085)	-0.153* (0.077)	-0.617*** (0.084)	-0.160** (0.075)	-0.603*** (0.084)	-0.145** (0.074)
General	-0.619*** (0.102)	-0.304*** (0.081)	-0.618*** (0.101)	-0.311*** (0.080)	-0.595*** (0.097)	-0.295*** (0.080)
incumbent	0.043 (0.045)	0.374*** (0.062)	0.043 (0.045)	0.380*** (0.059)	0.037 (0.044)	0.374*** (0.060)
ln(pop)	-0.044* (0.024)	-0.005 (0.013)	-0.048** (0.023)	0.004 (0.012)	-0.039 (0.030)	0.009 (0.015)
constant	-0.220* (0.113)	0.092 (0.095)	-0.220** (0.111)	0.061 (0.096)	-0.224** (0.102)	0.207 (0.198)
Specification	OLS	OLS	2SLS	2SLS	2SLS	2SLS
Candidate FE		✓		✓		✓
N	1365	1365	1365	1365	1365	1365
R2	0.567	0.859	0.567	0.858	0.566	0.859
adj. R2	0.560	0.851	0.560	0.851	0.559	0.851

Notes: State clustered standard errors in parentheses. The dependent variable and continuous covariates are z-score standardized. All specifications include election period and Census region fixed effects. *p<0.1; **p<0.05; ***p<0.01.