# Deferring Punishment from Liberalizing Trade: The Effects of Tariff Phaseouts in NAFTA

WORKING PAPER

ERIC THAI<sup>1</sup>

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<sup>&</sup>lt;sup>1</sup>Ph.D. Candidate, UC San Diego. Email: ethai@ucsd.edu. www.eric-thai.com

#### **Abstract**

Can international trade agreements be designed to delay political fallout? I argue that phasing out tariffs can delay and mitigate the political consequences of trade liberalization. I test these hypotheses using the case of the North American Free Trade Agreement (NAFTA), the United States' first and most consequential regional trade pact. First, I establish that longer phaseouts led to longer delays in employment decline for import-sensitive industries. Second, I find that counties sensitive to imports with minimal tariff phaseout punished Democratic presidential candidates immediately. In contrast, areas with more phaseout coverage penalize them later once tariffs are completely phased out. Third, Democratic Representatives and Senators who supported NAFTA are at greater risk of being voted out of office; however, greater phaseout coverage for their district mitigates such risk entirely. This article presents new evidence suggesting that highly particularistic provisions of trade agreements can delay and mitigate electoral backlash.

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## 1 Introduction

Can international trade agreements be designed to mitigate the political consequences of free trade? Existing literature primarily examines how "embedded liberalism" can minimize domestic backlash to trade by compensating the losers *ex-post* trade liberalization (Ritchie and You 2021; Kim, Naoi, and Sasaki 2025; Margalit 2011; Kim and Pelc 2021). Yet, not enough attention has been paid on *ex-ante* design choices that can quell domestic backlash to distributional consequences of trade.<sup>2</sup>

This paper examines the effectiveness of tariff staging in delaying employment and political consequences using the case of the North American Free Trade Agreement (NAFTA).<sup>3</sup> Ubiquitous in all FTAs, tariff staging is a micro-provision in the agreement's tariff schedule that phases out tariffs differentially by time. While free trade agreements (FTAs) eliminate substantially all trade barriers among agreement members, not all products become duty-free on the day of implementation. In the case of NAFTA, approximately 29% of dutiable product tariffs were phased out, with an average, median, and maximum duration of 7.5, 6.6, and 15 years, respectively. Tariff phaseouts can ease factor adjustment to trade

<sup>&</sup>lt;sup>2</sup>With the exception of Grossman and Helpman (1995), who argue that liberalization exclusion in trade agreements can diffuse domestic opposition to trade cooperation.

<sup>&</sup>lt;sup>3</sup>I select NAFTA as a case to examine due to it being the first regional free trade agreement that left a consequential mark in the American economy and politics (Flaherty 2025*b*,*a*; Choi et al. 2024).

liberalization and assist in reallocating resources (Riker 2021; Mussa 1984; Leamer 1980), thereby mitigating employment consequences of trade shock from immediate tariff elimination. As a result of such economic easing, the political consequences should be either delayed or mitigated for incumbents associated with trade liberalization.

First, I demonstrate that tariff phaseouts can delay employment losses with a series of event studies. Controlling for the contemporaneous China shock that occurred during the NAFTA implementation period (1994-2008), to which I replicate Pierce and Schott (2016)'s findings, I find that industries that received a maximum phaseout of five and ten years started to experience persistent employment decline starting in 2003 and 2011, respectively. Industries with a 15-year phaseout experience a decline in employment between 2014 and 2016. Industries in which their tariffs are eliminated overnight saw a persistent *increase* in employment starting in 2002.

Next, I test the political consequence-moderating effect of tariff phaseouts for presidents and congressional members. First, I examine the changes in the Democratic presidential vote share after the implementation of NAFTA. I find that because the Clinton Administration took ownership of NAFTA, subsequent Democratic presidential candidates experienced long-term, persistent electoral punishment. That is, import-sensitive counties with minimal tariff phaseouts punished Democrats in the 1996, 2000, and 2016 presidential elections. Import-sensitive counties with higher phaseout coverage experienced a delay in electoral punishment. In particular, these counties voted less for Barack Obama in both the 2008 and 2012 presidential elections.

Second, I examine the survival likelihood of U.S. Representatives and Senators who voted to ratify NAFTA. First, I find that House incumbents who supported NAFTA were 82% more at risk to retire or decide not to run again sooner than those who opposed NAFTA. While this may be endogenous to their political horizon, that is, they co-sign an unpopular policy knowing they will retire, I find evidence suggesting that the unpopularity of junior representatives' support for NAFTA disincentivized or barred them from seeking reelection. Next, I find that Democratic Representatives (Senators) who voted to ratify NAFTA are 380% (455%) more at risk of being voted out compared to a 69% (82%) reduced risk of being voted out for Republicans who supported NAFTA. Having a greater share of the district workforce being covered by tariff phaseouts mitigates such risk entirely.

This paper contributes new insights to several areas of the trade literature. First, I contribute to the literature on trade and election by demonstrating that tariff phaseouts can delay and mitigate the electoral backlash to trade (Margalit 2011; Che et al. 2022;

Autor et al. 2020; Flaherty 2025*a,b*; Jensen, Quinn, and Weymouth 2017; Rickard 2022; Ritchie and You 2021). While prior research has shown that redistributive programs, like Trade Adjustment Assistance (Ritchie and You 2021; Margalit 2011), can moderate anti-incumbency effects of layoffs and trade shocks, the allocation of redistributive programs is eligibility-based (Kim, Naoi, and Sasaki 2025) and sometimes varied based on the party of the administration (Kim 2024). My paper demonstrates that tariff phaseouts are tools that the president can use to manipulate the timing of import competition and layoffs. Therefore, the executive not only can "rig" the game for himself and subsequent copartisan presidential candidates but also can buy political protection to convince sensitive legislators to vote in favor of ratification.

Second, I demonstrate that supporting and taking ownership of a major free trade agreement, such as NAFTA, especially when it goes against the party's stance and coalition, can lead to a persistent anti-Democrats effect in elections, which echoes findings from Choi et al. (2024). NAFTA became the "scarlet letter" of the Democratic Party. On the one hand, subsequent Democratic presidential candidates experienced backlash in NAFTA-sensitive counties, even if they played no role in the trade agreement. On the other hand, Congressional incumbents who supported NAFTA are punished and rewarded depending on whether they are Democrats or Republicans.

Third, I provide further evidence that speaks to the globalization backlash the US experienced starting in 2016. While scholars have demonstrated that China played a major role in the globalization backlash (Autor et al. 2020; Ritchie and You 2021), a growing group of scholars has also demonstrated the long-term impact of NAFTA, which has been neglected by scholarship until more recently (Flaherty 2025b; Choi et al. 2024). I present preliminary evidence that political entrepreneurs can easily activate latent anti-NAFTA attitudes from import-sensitive counties without phaseout coverage. While deserving further investigation, especially at the individual level, the results suggest that anti-Democrat sentiments from NAFTA-sensitive counties subsided before being reactivated in 2016, when Donald Trump ran on an anti-trade platform (with a specific focus on NAFTA and China). This result is robust when controlling for counties exposed to Chinese imports, in which the Autor, Dorn, and Hanson (2013)'s instrumental variable is also correlated with anti-Democrat voting behaviors.

Finally, while evidence on the import-mitigation effect of tariff phaseouts are mixed at best, <sup>4</sup> I show initial results that the delay in industry employment losses corresponds to

<sup>&</sup>lt;sup>4</sup>See Baier and Bergstrand (2007) and Khan and Khederlarian (2021) for positive evidence of mitigation effect; Khan and Khederlarian (2021) provides evidence that goods imported from Mexico and Canada is dampened prior to the next staged reduction, suggesting that importers are aware and anticipate tariff

the phaseout duration. In the context of studies that find no significant impact between tariff phaseouts and imports, I argue that increases in imports may not necessarily correspond with a decline in employment until offshored production can fulfill the increased demand at lower tariff rates.

# 2 Consequences of Trade Liberalization

The relationship between trade and election is well established. While consumers are generally better off with free(r) trade, trade liberalization bring about distributional consequences. Depending on where industries agglomerate,<sup>5</sup> liberalizing trade differentially affects regions (Flaherty 2024; Autor, Dorn, and Hanson 2013). Regions with a high concentration of import-competing industries are likely to experience higher unemployment rates resulting from job offshoring or competition from foreign brands. Regions with a high concentration of export-oriented industries are likely to experience employment growth due to greater market access abroad.

Regions that are negatively impacted by trade often vote against the incumbent (Margalit 2011; Rickard 2022; Jensen, Quinn, and Weymouth 2017). Moreover, in the United States, a growing body of research suggests that trade liberalization and trade shocks generally have hurt Democratic candidates (Baccini and Weymouth 2021; Choi et al. 2024; Autor et al. 2020), with an exception noted by Che et al. (2022). Whether it be through social identity mechanisms (Baccini and Weymouth 2021), polarization (Autor et al. 2020), or betrayal by the Democratic Party through the ratification of NAFTA (Choi et al. 2024), trade liberalization affects elections through the employment consequences channel. This paper asks, what if the employment consequences are delayed? Will the political consequences also be delayed or, at best, be mitigated entirely?

Trade liberalization is not always binary.<sup>6</sup> While policy changes on trade often serve as treatment date for when countries commit to free(r) trade, many tariff lines are phased out rather than being eliminated overnight. Across US FTAs, 16% of tariff lines are phased out, with an average and median duration of 7.5 and 6 years, respectively.

Phasing out tariffs confers two key benefits to domestic producers that can minimize the employment consequences. First, maintaining some level of tariffs during the early

reduction, and make use of lower rates, however small they may be. See Besedes, Kohl, and Lake (2020) and Dong and Jestrab (2022) for negative evidence.

<sup>&</sup>lt;sup>5</sup>See Krugman (1992); Ellison and Glaeser (1997, 1999); Ellison, Glaeser, and Kerr (2010); Shaver and Flyer (2000); Rosenthal and Strange (2001).

<sup>&</sup>lt;sup>6</sup>With the clear exception of granting countries permanent normal trading relations status, like with China in 2000, or the entrance of a new member state into the WTO.

phase-out period can reduce the immediate incentives for firms to offshore jobs to trade partners. Companies are likely to offshore only when the cost of producing goods abroad is lower than the cost of producing them domestically. Factors such as labor and transportation costs, along with tariffs, influence this cost assessment. Therefore, if tariffs take longer to decrease to a level that makes offshoring more profitable compared to domestic production, firms will likely delay their decision to move jobs overseas.

Second, maintaining some level of tariffs, while gradually being reduced, can help maintain the competitiveness of workers. While imports may start entering the U.S. market earlier in the phased reduction period (Besedes, Kohl, and Lake 2020; Dong and Jestrab 2022), this does not automatically mean that domestic producers lose their competitiveness right away. The established branding and reputation of domestic companies can help prevent consumers from quickly switching to foreign brands in the initial stages. Additionally, phasing in pressure from import competition may help motivate and provide breathing room for firms to adjust. Indeed, economists have argued and provided small-scale empirical tests examining how tariff phaseouts can facilitate adjustments within industries and assist in reallocating resources (Riker 2021; Mussa 1984; Leamer 1980). Hence, I hypothesize that:

**Hypothesis 1 (H1):** Industries with longer phaseouts should experience a delay in employment decline.

A delay in layoffs should naturally result in a delay of the political consequences for incumbents. The literature has established the anti-incumbency effect of layoffs, job offshoring, and import competition (Margalit 2011; Rickard 2022; Jensen, Quinn, and Weymouth 2017). Therefore, import-sensitive counties with minimal phaseout are expected to punish the incumbent president not just because they oversaw a poor economy (Wright 2012; Fair 1978; Tufte 1978), but because they were responsible for the loss in employment. On the other hand, import-sensitive counties that are insulated by tariff phaseouts should not exhibit any anti-incumbency effects in the short run.

**Hypothesis 2 (H2):** Areas more import-sensitive (but are insulated temporarily with tariff phaseouts) would (not) immediately punish the incumbent responsible for the trade agreement.

The question, then, is whether voters correctly attribute the party of the president responsible for their economic woes long after the incumbent has left the office. There is an agreement among several scholars that voters punish the party of the incumbent that were responsible for adverse economic effect of trade in both the short and long term

(Rickard 2022; Flaherty 2025*b*; Choi et al. 2024);<sup>7</sup> This is unsurprising given how party identity and party ownership of certain issues serve as heuristic devices among low information voters (Campbell et al. 1976; Wright 2012). Given this shortcut, if voters suffer the consequences of a trade policy made by an incumbent, then regardless of the timing of the negative trade effects, voters would be more likely to punish the party associated with the incumbent if they cannot punish the incumbent themselves.

**Hypothesis 3 (H3):** Areas more import-sensitive (but are insulated temporarily with tariff phaseouts) would punish the party responsible for the trade agreement immediately (in the future).

Do the anti-incumbency and anti-Democrats effects of trade liberalization translate to Congressional elections? Evidence from a small body of research examining the impact of the China trade shock on congressional elections is varied.<sup>8</sup> On the one hand, Feigenbaum and Hall (2015) find no anti-incumbency effects; on the other hand, Che et al. (2022) find that trade-shocked districts increased their support for Democrats, while Autor et al. (2020) find a rightward shift. The Democratic party has generally been known to represent the protectionist interests of union members and working-class voters; therefore, having a Democratic president pushing an agreement like NAFTA through with the support of 39% (49%) of the Democratic House (Senate) majority in the 103rd Congress was an act of "betrayal" (Choi et al. 2024). As a result, I expect that Democratic incumbents in Congress who voted to ratify NAFTA are at higher risk of being voted out. However, because tariff phaseouts are hypothesized to delay employment consequences, I expect that districts that are insulated by tariff phaseouts are less likely to vote out their Democratic incumbents even if they ratified NAFTA.

**Hypothesis 4 (H4):** Democratic congressional incumbents are more likely to be voted out of office when they ratified NAFTA; however, this relationship is moderated when the district is insulated with tariff phaseouts.

# 3 The Case of NAFTA

I choose to analyze the employment and political consequences of NAFTA for three primary reasons. First, Mexico and Canada are the United States' two biggest trade partners, partly due to the close proximity for global value chain integration and the regional

<sup>&</sup>lt;sup>7</sup>Although Flaherty (2025*b*) specifically look at voters' turn toward populist candidates, such as Ross Perot and Donald Trump, one may interpret the result as a punishment of the Democratic party.

<sup>&</sup>lt;sup>8</sup>The focus on the China trade shock is primarily due to the causal identification strategy developed by Autor, Dorn, and Hanson (2013) and Pierce and Schott (2016).

economic integration made possible by NAFTA. Additionally, NAFTA expanded the US-Canada trade agreement to include Mexico, which makes NAFTA the first major agreement the US signed with a developing country. Given that Mexico's labor costs are substantially cheaper than in the US, liberalizing trade poses a great threat to low-skill manufacturing and agricultural employment. Indeed, the academic literature has empirically demonstrated the political and economic consequences of NAFTA (Choi et al. 2024; Flaherty 2025b; Hakobyan and McLaren 2016). However, the literature does not take into account the fact that 29% of dutiable product tariffs in NAFTA were phased out with an average, median, and maximum duration of 7.5, 6.6, and 15 years, respectively. The delay in the import exposure of NAFTA may consequently defer the economic woes attributable to the Democratic president and party who pushed it through.

Second, NAFTA entered into force in 1994, before the oft-studied China shock. The trade literature attributes many political consequences to the import shock from China (Autor et al. 2020; Che et al. 2022; Feigenbaum and Hall 2015; Colantone and Stanig 2018*b,a*; Ballard-Rosa et al. 2021). As a result, the effects of FTAs signed in the 2000s and 2010s would be confounded by exposure to Chinese imports. Given that NAFTA was implemented in 1994, it allows for the analysis of the electoral effect of trade in at least two election cycles, free from contamination by China. Beyond 2000, my research design accounts for the China shock since it occurred during NAFTA's implementation period (1994-2008). Thankfully, import exposure from NAFTA trade partners has minimal overlap with import exposure from China — a point I will elaborate on later.<sup>9</sup>

Third, NAFTA is unique in that the entire agreement, including the tariff schedule (except for the labor and environment side letters), was negotiated by President Clinton's predecessor. This offers a unique test to examine whether a president (and the party) taking ownership of a trade agreement they did not negotiate would be detrimental to their and their copartisans' electoral prospects.

# 4 Employment

To examine whether industries with longer phaseouts would experience a delay in employment reduction (H1), I employ an event study to establish that phasing out tariffs can moderate the impact on industry employment resulting from higher import exposure. I follow the generalized difference-in-differences identification strategy proposed by Pierce

<sup>&</sup>lt;sup>9</sup>The correlation between the pre- and post-NAFTA tariff difference and ?'s Normal Trading Relations (NTR) gap measure is 0.22, which suggests that import-exposure from NAFTA does not majorly overlap with China.

and Schott (2016) and extend it to a triple difference-in-differences estimation. Pierce and Schott (2016) captures the effects of granting China permanent normal trading relations (PNTR) by calculating the difference between non-NTR and NTR rates. This measure captures the level of exposure based on the degree to which tariffs are permanently lowered to the NTR rate without the uncertainty of being renewed every year. They find that industries with a larger NTR gap experienced a larger employment decline. Given that China entered the WTO during the NAFTA implementation period (1994-2008), I control for the contemporaneous shock using the NTR gap.

To mirror Pierce and Schott (2016)'s measurement, I calculate the difference between pre-NAFTA rates and post-NAFTA rates to measure the impact of free trade on employment. Since all tariff lines are staged to be eliminated by NAFTA, I use the applied base rate reported on the NAFTA tariff schedule and supplement any non-ad-valorem rates with ad-valorem equivalent rates from UNCTAD TRAINS tariff database. The correlation between *NAFTA gap* and *NTR gap* is 0.22, which suggests that there is a relatively small overlap in the kind of industries that are exposed to imports. Figure A7 plots the two gap measures with a 45-degree dashed line and a linear regression line fitted in red. As is evident, there is considerable variation between the two measures, which provides an opportunity to analyze NAFTA's employment impact independently from China.

NAFTA staged the elimination of all tariffs with varying durations. At the industry level, I assigned the maximum phaseout duration for any given product, which yielded four groups: immediate elimination (187 industries), five-year (46), 10-year (120), and 15-year (14). I take the maximum duration for each industry because often, the product industries that need protection are most likely final consumer goods, as opposed to inputs and parts, and are very particular and differentiated. Additionally, many products within an industry serve as inputs for final production, which firms want to access as quickly and affordably as possible for domestic production. As such, if we consider taking the average phaseout duration industries received from NAFTA, it would not accurately capture the protection the industry received, given that inputs tend to be phased out immediately (Baccini, Dür, and Elsig 2018). Figure 1 plots the share of 6-digit NAICS with the four phaseout groups across different subsectors.

[Figure 1 about here]

Put together, I estimate equation 1, which specifies a triple difference-in-differences

<sup>&</sup>lt;sup>10</sup>There are several industries with varying phaseout duration; however, the number of industries for each staging is so small (1 or 2) that it would not be estimated correctly with 2-, 3-, 4-, 7- and 9-years phaseout duration.

 $<sup>^{11}</sup>$ See Figure A5 to compare the density for the industry average and maximum phaseout duration.

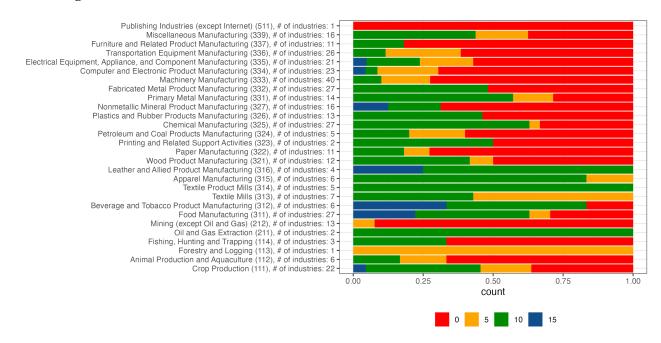


Figure 1: Count of Industries and Maximum Phaseout Granted in NAFTA

*Note:* Figure plots the share of industries (NAICS 6 digits) within subsectors (NAICS 3 digits) and their maximum phaseout duration granted in NAFTA. Created by Author 9/24/25.

(DDD) estimation for *NAFTA Gap* while controlling for the contemporaneous China shock with *NTR Gap*. When accounting for the tariff phaseout group, I am able to estimate the effects of having greater tariff reduction on industry employment over time, moderated by the maximum phaseout the industry received.

$$ln(Emp_{it}) = \alpha_i + \lambda_t + \sum_{g \in G} \sum_{t \neq 1993} \beta_{gt}(Phaseout_{ig} \times NAFTAGap_i \times Year_t) + \sum_{t \neq 2000} \zeta_t(NTRGap_i \times Year_t) + \epsilon_{it}$$
(1)

 $ln(Emp_{it})$  is logged industry employment at the NAICS 6-digit level. I use the Bureau of Labor Statistics' Quarterly Census of Employment and Wages for employment data, which provides comprehensive employment data for all industries.  $^{12}$   $\alpha_i$  and  $\lambda_t$  are industry and year fixed effects to control for unobserved confounders.  $\beta_{gt}$  captures the effect of *NAFTA Gap* for a specific phaseout group g in a specific year t. *Phaseout* lig is a dummy variable that equal to 1 if industry i belongs to phaseout group g, where  $g \in \{0, 5, 10, 15\}$ .

<sup>&</sup>lt;sup>12</sup>BLS's industry coverage is more extensive than the conventional County Business Pattern (CBP) dataset. CBP excludes crops and animal production (NAICS 111 and 112). See their methodology page.

NAFTAGap<sub>i</sub> is the difference between pre- and post-agreement average industry tariff rate. Year<sub>t</sub> is a dummy variable for each year in the sample with 1993 as the reference year (the year NAFTA was ratified).  $\sum_{t \neq 2000} \zeta_t(\text{NTRGap}_i \times \text{Year}_t)$  controls for the contemporaneous import shock from China being granted permanent normal trading relations (PNTR) and joining the WTO in 2000. I cluster the standard errors by industry and use pre-treatment employment levels in 1990 as weights.

#### 4.1 Threats to Inference

This generalized difference-in-difference design provides causal estimates when the two identifying assumptions — parallel trends and no anticipatory treatment effects — are satisfied. First, the parallel trends assumption is satisfied by having statistically insignificant estimates in the period leading up to the treatment, as seen in Figure 2 and 3.

Second, and more difficult to justify, is the absence of an anticipatory treatment effect. Tariffs do not decline without warning, nor do they decline randomly. Central to this study is the fact that tariff reduction is "staged" in the agreement's schedule, providing interested actors and stakeholders with full information on the specific tariff rate at any point of the implementation period. In a study conducted by Khan and Khederlarian (2021), they find that imports slowed down in months prior to the next staged reduction in tariffs on goods from Mexico and Canada; this suggests that firms plan ahead in anticipation of the staged reduction, providing credence to the idea that they strategically maximize profits. As a result, rational economic actors may adjust their behavior at home in anticipation of reduced tariffs. While this is a reasonable expectation, one must examine the kind of anticipatory behavior economic actors may engage in and why it may not necessarily affect employment prior to the treatment date.

In anticipation of reduced tariffs, firms may make investments to shift production abroad. However, building the plant, hiring and training workers and managers, and creating supply chain infrastructure all take time. Additionally, firms may not start importing goods and laying off their domestic workforce unless the foreign plant can fulfill existing demands and not create a gap in supply. Given that economic actors know the precise tariff rate at which importing foreign goods would be more profitable than maintaining domestic production, we should not expect anticipatory changes in employment before optimum rates are obtained. In other words, firms may make investments abroad in anticipation of reduced tariffs, but they may not lay off workers until the existing tariffs reach a level that would make importing more profitable than domestic production.

While the anticipatory behavior of firms is accounted for, we must also consider the

anticipatory behaviors of workers. Workers may be aware that they are at a comparative disadvantage vis-á-vis foreign competitors; as a result, workers may preemptively real-locate within or across industries in expectations of layoffs. While one may reasonably expect firms to behave rationally when given complete information on the tariff reduction schedule, it is not reasonable to expect that every day workers to know *when* they would be laid off based on the profit-maximizing responses of firms to specific optimal tariff rates. Tariffs, and especially tariff phaseouts, are highly specialized issues that may not be easily understood by regular Americans. While I argue that workers may be aware of their relative position vis-à-vis Mexico and Canada, I posit that they do not know when they would be laid off, which relieves us of the problem of anticipatory behavior, thereby satisfying the last assumption.

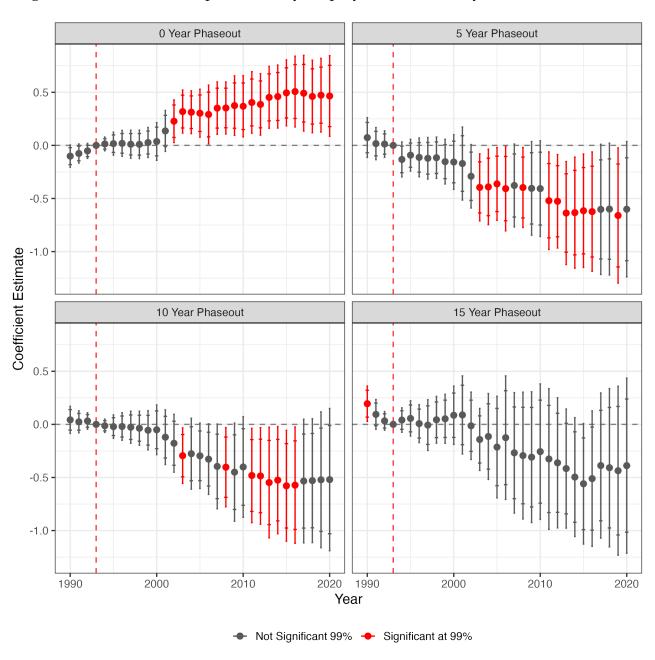
#### 4.2 Results

Figure 2 plots four event study graphs with the estimates and 99% and 95% confidence intervals to empirically establish that the employment effect of liberalizing trade with NAFTA is moderated by tariff phaseout. Starting with industries in which all product tariffs are liberalized overnight in 1994 (0 Year Phaseout). While one might expect employment to decline immediately, it may be surprising to see a gain in jobs in the long run, starting in 2002. We must note the selection effect that led to all industry tariffs being eliminated overnight, in which there are two possibilities. First, an industry may not expect a major import threat from Mexico, and as such, negotiators did not grant any tariff staging to these industries, allowing them to focus on allocating phaseouts to industries that need them. As argued by Thai (2025), negotiators are strategic and stingy with tariff phaseouts, as phasing out tariffs to protect import-competing industries imposes reciprocal opportunity costs on exporters. A second possibility is that specific industries benefit from accessing cheaper inputs from Mexico, which may explain the observed increase in employment. Additionally, industries that produce differentiated goods would not require much protection, as any consumer goods coming from Mexico may not be easily substituted.

#### [Figure 2 about here]

Next, industries with a maximum phaseout of 5 years began to experience consistent employment losses starting in 2003, while those with a 10-year phaseout exhibited a more consistent decline beginning in 2010. This provides some preliminary evidence that tariff phaseouts can delay employment decline for industries sensitive to Mexican imports. Industries with a 15-year phaseout do not exhibit a significant decline in employment;

Figure 2: NAFTA Tariff Gap on Industry Employment, Faceted by Phaseout Duration



*Note:* Figure displays the coefficients and 99% and 95% confidence intervals (CI) from the estimated triple difference-in-differences (DDD) from equation 1 that interacts year dummies with the NAFTA tariff gap and four groups of phaseout duration from equation 1. Created by Author 9/23/25.

however, from 2014 to 2016, the negative coefficient is significant at a 95% confidence level. All in all, the first hypothesis is supported.

Figure 3 plots the PNTR shock that occurred during the NAFTA implementation period. Echoing the findings from Pierce and Schott (2016), industries more exposed to imports from China experienced a permanent employment decline.

[Figure 3 about here]

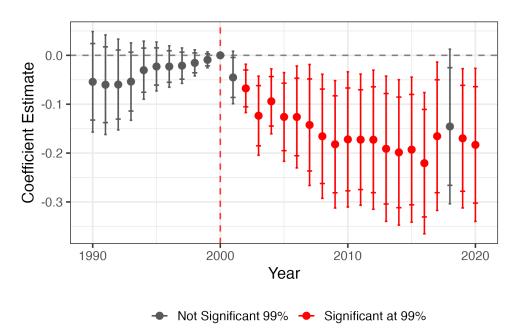


Figure 3: NTR Gap on Industry Employment

*Note:* Figure displays the coefficients and 99% and 95% confidence intervals (CI) from the estimated triple difference-in-differences (DDD) from equation 1. The estimates capture the impact of granting PNTR status to China in 2000. Created by Author 9/23/25.

# 5 Presidential Elections

To examine the immediate and delayed political consequences of NAFTA when taking into account tariff phaseouts (hypotheses 2 and 3), I run a series of cross-sectional OLS models regressing the one-election cycle changes in Democratic vote share with an interaction between the import threat NAFTA poses as well as the phaseout coverage the county received from the NAFTA tariff schedule.

For the outcome variable, I take the one-election difference in Democratic two-party vote share from the 1996 to 2020 presidential elections. Election returns data is primarily

from Data and Lab (2018), supplemented by CQ Library Voting and Elections Collection for the 1988, 1992, 1996 elections.

## 5.1 Phaseout Coverage

To examine the moderating effect of tariff phaseouts, I collected original data on U.S. tariff treatment for NAFTA as part of a larger data project. The PTARIFF database contains information on the treatment of each tariff line code at the eight digits U.S. harmonized tariff system (HTS) level.<sup>13</sup>

The data collection process for NAFTA is as follows: First, I use the digitized US tariff schedule in NAFTA from Besedes, Kohl, and Lake (2020) and manually coded approximately 1100 products with more than one tariff treatment. Second, I manually code each unique staging category by hand, referring to the NAFTA main text to make a determination on whether the item with the category is (1) reduced, (2) eliminated, and if so, whether it is (3) immediately eliminated. Next, I code the (4) duration of the phaseout in years, (5) means of reduction (whether it is linear or back-loaded). If the category backloads the phaseout, meaning there is a momentary pause prior to reduction, I also code (6) the duration of the initial pause. Figure A2 provides an example of the language on staging categories that is common between the USA and Australia, and Figure A3 is an example of a headnote staging categories specific to the United States. Fourth, I merge the schedule table with the coded categories.

While the data provide extremely rich information on each product's tariff treatment, I use a binary measure to indicate whether a dutiable product's tariff is phased out for the purpose of this paper. Given that the unit of analysis is at the county level, the simplest and most interpretable approach to using this data is to calculate the coverage of tariff phaseout among the county's workforce. Mathematically, it looks like:

$$PhaseoutCoverage_{c} = \sum_{k=1}^{K \in c} \left( \frac{E_{ckt}}{E_{ct}} \times \left( \frac{\sum_{p=1}^{P \in k} PO_{p}}{P \in k} \right) \right)$$
 (2)

where  $PO_{pj}$  is a binary measure of whether product p is phased out (1) or not (0) in

<sup>&</sup>lt;sup>13</sup>PTARIFF is a broader data project in collaboration with Elisabeth Van Lieshout, who is a Stanford Political Science Ph.D. and currently a trade policy analyst at the OECD, that slated to code dyadic tariff treatment for over 120 bilateral trade agreements.

<sup>&</sup>lt;sup>14</sup>The author thanks Besedes, Kohl, and Lake (2020) for providing the digitized NAFTA tariff schedule since the PDF version is not suited for optical character recognition (OCR) technology.

<sup>&</sup>lt;sup>15</sup>See Figure fig:tariff<sub>s</sub>chedule<sub>e</sub>xample for an example of a tariff schedule.

 $<sup>^{16}</sup>$ Figure A4 illustrates the difference between tariff phaseouts that are "linear" and "backloaded."

NAFTA. This is summed up among other *dutiable product codes* within the industry  $\sum_{p=1}^{P \in k} P_{p+1}$ , which excludes products that were already duty-free prior to the agreement to provide an accurate proportion of the products that are protected — however temporary — prior to taking the share with the total number of dutiable products P within industry employment share P in district P where P is the total employed workers in district P at time P to Employment numbers are averaged over the 5 years preceding the NAFTA's signature date.

Individually, the product of the two terms should give an estimate of the proportion of industry k workers as a share of the total employed workforce in district d that is "covered" by tariff phaseouts. Finally, I take the sum across all industries within district d to arrive at the share of district d's workforce that is covered by tariff phaseouts. Figure 4 illustrates the phaseout coverage from NAFTA, categorized into quartiles.

[Figure 4 about here]

# 5.2 Import Threat

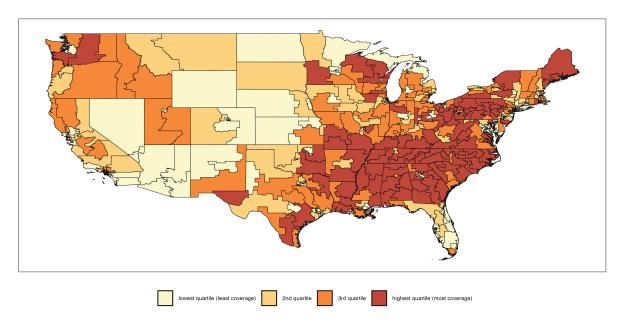
I measure the degree to which the NAFTA partners pose an import threat to a county by aggregating product-level *Import Threat* measure, described in Equation 3, to the county level. Contrary to traditional import penetration measure, which uses pre-existing aggregated import data, I argue that such measures may be biased or attenuated toward zero due to existing tariffs that may bar certain imports from entering. A clear example is the 25% tariff on light trucks that the U.S. imposes on the rest of the world, which is so astronomically high that firms abroad have little reason to produce light trucks for export to the U.S. Instead, I propose that a partner poses a more significant threat when they can fulfill the changes in import demand after tariffs are eliminated.

Equation 3 outlines how *Import Threat* is constructed as a function of demand change when the tariff for product p at time t is eliminated in country i, i.e., the U.S.,  $(1 - (1 + BaseRate_{ipt})^{-\sigma_{ip}})$  and the FTA partner's j total export value of product p to the rest of the world  $Export_{jip\tau,i\neq USA}$ . I specify the partner's export number to exclude their exports to the United States, thereby avoiding endogeneity due to existing barriers that disincen-

<sup>&</sup>lt;sup>17</sup>I concord different HS revisions across agreements to HS rev. 2002, linking it with industry-level variables at NAICS rev. 2012. I used Liao et al.'s 2020 Concordance package to translate 6-digit HS codes (2002 revision) to 6-digit NAICS (2012 revision).

<sup>&</sup>lt;sup>18</sup>Industry employment data is from Eckert et al.'s 2020 version of the County Business Pattern data, where they harmonized industry codes to the 2012 revision of the NAICS. I used the Missouri Census Data Center's county-district crosswalk files to map employment from the county to the district level.

Figure 4: Map of NAFTA's Phaseout Coverage Overlaid on 102nd Congressional District Boundaries



*Note:* Phaseout coverage is grouped into quartiles. Congressional District boundaries are drawn from Lewis et al. (2013). Created by Author 7/31/25.

tivize trade. Here,  $\tau$  indicates that the export numbers are rolling averages of the three years preceding the agreement's signing in 1992. Export data is aggregated to the 4-digit level to minimize missing data at the 6-digit level from 16% to 5%.

$$ImportThreat_{jpt} = log(Export_{jip\tau, i \neq USA} \times (1 - (1 + BaseRate_{ipt})^{-\sigma_{ip}}))$$
 (3)

The demand change is characterized as the inverse of the demand level when prices are higher due to tariffs. First,  $(1 + BaseRate_{ipt})$  specifies the percentage change in price for imports when there are tariffs. For example, a 25% tariff on light trucks would increase the price of said goods by 1.25 times.  $\sigma_{ip}$  is the import demand elasticity. Put together  $(1 + BaseRate_{ipt})^{-\sigma_{ip}}$  computes the demand level when there's a tariff in place; hence, with high import demand elasticity, a large price change (i.e., reduction in price when tariffs are eliminated) would lead to greater changes in demand levels.

For example, the demand for imported light trucks with a 25% tariff would be 41% with an elasticity of 4 (high) versus 80% with an elasticity of 1 (low), compared to the baseline of 100% when there's no tariff.<sup>19</sup> If demand for light trucks is highly elastic, the

<sup>19</sup>In which case, regardless of elasticity, the resulting demand level would be 100%. For example  $1^{-4} = 1^{-1}$ .

elimination of tariffs would increase demand by 59%, as captured by the difference with 1, or 100%.

MFN base rates are taken from the trade agreement and are supplemented by UNC-TAD TRAINS data where there are missing values or non-ad valorem rates. Data on import demand elasticity is from Broda and Weinstein (2006), accessed from Liao et al. (2020)'s concordance package. Because the 6-digit estimates of import demand elasticity have extreme outliers, I take the median value of 6-digit HS products and aggregate it to the 2-digit HS.

I then aggregate the product-level *Import Threat* measure to the district level using the aggregation outlined in Equation ?? by replacing the phaseout component with *Import Threat*.

# 5.3 Model Specification

The series of cross-sectional regressions can be specified as:

$$\Delta VoteShare_{ct-t_{-4}} = \delta_s + \beta_1 NAFTAImportThreat_c + \beta_2 NAFTAPhaseoutCoverage_c + \\ \beta_3 (NAFTAImportThreat_c \times NAFTAPhaseoutCoverage_c) + \\ \beta_4 \mathbf{X}_{ct-t_{-4}} + \beta_5 \mathbf{X}_{ct} + \beta_6 ChinaShock_c + \\ \beta_7 \Delta VoteShare_{ct_{-4}-t_{-8}} + \beta_8 VoteShare_{ct_{-4}} + \varepsilon_c \\ t = 1996, 2000, 2004, 2008, 2012, 2016, 2020, \end{cases}$$

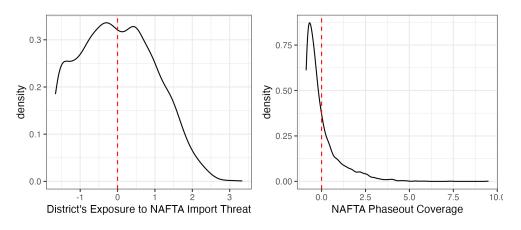
$$(4)$$

where  $\Delta Vote Share_{ct-t_{-4}}$  is the change in Democratic vote share in the presidential election in year t from the last election four years ago  $t_{-4}$ . The first covariate of interest is  $\beta_1 NAFTAImportThreat_c$ , which, conditional on not having much  $NAFTAPhaseoutCoverage_c$ , should correlate with a reduced Democratic vote share in elections immediately after NAFTA's implementation in 1994. The second covariate of interest is the interaction term  $\beta_3(NAFTAImportThreat_c \times NAFTAPhaseoutCoverage_c)$ , where import-sensitive areas with tariff phaseout coverage should punish Democratic candidates later. The average, median, and maximum durations are 7.5, 6.6, and 15 years, respectively. Hence, we should see a significant electoral effect for the interaction term ranging from 2000 to 2009. Figure 5 displays the density plots of the two main covariates, both of which are standardized.

[Figure 5 about here]

I control for a host of factors.  $\mathbf{X}_{ct-t_{-4}}$  is a vector of controls that consists of changes in

Figure 5: Changes in Democratic Two-Party Vote Share in Percentage Points



*Note:* Created by Author 7/30/25.

labor force (% $\Delta$ ), income per capita (% $\Delta$ ), and unemployment rate ( $\Delta$ ) between the current and previous elections.  $X_{ct}$  is a vector that consists of election-year variables, such as county demographics (% white, % black, % male, and % with at least a bachelor's degree). ChinaShock<sub>c</sub> is a county-level vector that consists of two instruments to measure Chinese import penetration. The first is the Chinese import growth from 2000 - 2007, instrumented by Chinese import growth in other industrialized countries in the 1990s. This data was taken from Autor, Dorn, and Hanson (2013). The second measure is county exposure to Chinese imports, measured by the gap between non-Normal Trading Relations (non-NTR) and NTR rates (Che et al. 2022; Pierce and Schott 2016). I take data on Non-NTR and NTR rates from Pierce and Schott (2016). I also control for the lagged percentage point change in Democratic vote share ( $\Delta VoteShare_{ct-4}$ ). Finally, I include state fixed effects  $\delta_s$  to account for unobserved variation across states. All covariates are standardized to ease interpretation. The model is weighted by county population reported in the election year.<sup>20</sup>

#### 5.4 Results

Figure 6 displays the coefficients of the two main covariates (*NAFTA Import Threat* and *NAFTA Import Threat x PO Coverage*) on democratic vote share from 1996 to 2020. To evaluate H2, which examines incumbent vote share, I analyze the change in democratic vote share for the 1996 and 2000 presidential elections. On the other hand, H3 examines the democratic vote share for all subsequent presidential elections. The left panel displays

<sup>&</sup>lt;sup>20</sup>2020 election uses 2019 population count due to data availability, but also due to the COVID-19 pandemic.

the marginal effect of *NAFTA Import Threat* on the change in democratic vote share for counties with an average level of PO Coverage. The right panel shows the coefficient for the interaction term, *NAFTA Import Threat x PO Coverage*, which indicates how the effect of the import threat changes as PO Coverage increases by one standard deviation. This interaction estimate should demonstrate the moderating effects of tariff phaseouts. Each line on the y-axis is a separate model to visualize the changes in vote share across elections.

#### [Figure 6 about here]

Δ 1992 - 1996

-0.02

-0.01

NAFTA Import Threat

NAFTA Import Threat x PO Coverage

Δ 2016 - 2020 
Δ 2012 - 2016 
Δ 2008 - 2012 
Δ 2004 - 2008 
Δ 2000 - 2004 
Δ 1996 - 2000 -

Figure 6: Changes in Democratic Two-Party Vote Share in Percentage Points

Not Significant Significant (95%)

0.00.009

**Estimates** 

-0.006

-0.003

0.000

0.003

*Note:* See Table A2 for the regression table. See Figure A9 for the coefficient plot for all covariates. Created by Author 8/25/25.

0.00

NAFTA Import Threat, when conditional on the NAFTA Phaseout Coverage being held at 0, or at the mean, is negative and statistically significant for the 1996, 2000, and 2016 elections. This means that counties sensitive to imports, but with about 8% of the district's workforce covered by the tariff phaseout, punished Democrats in elections immediately after NAFTA's implementation. Substantively, Bill Clinton and Al Gore lost one and 0.9 percentage points, on average, respectively, compared to the previous election for every standard deviation increase in NAFTA Import Threat. In counties that experienced three-standard-deviation above the mean in import threat — i.e., the maximum — with the average phaseout coverage, Bill Clinton is predicted to have lost at most 3 percentage points. In 2016, Hillary Clinton lost about 0.7 percentage points, on average, compared to the vote share Barack Obama garnered in 2012 for every standard deviation increase in NAFTA Import Threat.

The result of the 2016 election suggests a revival of NAFTA as a salient issue in the

consciousness of voters in areas most impacted but were not as well insulated by tariff phaseouts. Prior to 2016, the anti-Democratic party effect of *NAFTA Import Threat* was *not* significant since 2004, which suggests a declining salience of NAFTA and its ties to the Democratic party. However, because Donald Trump ran on an anti-trade populist platform, <sup>21</sup> the increased salience of NAFTA brought forth anti-Democratic party sentiment to the fore, suggesting that the party identity of the president who took ownership of a trade policy is extremely *sticky* in the consciousness of those hurt by it. As such, the latent attitude of trade-affected voters matters heavily as all it needed was a catalyst to activate.

This first set of results contributes two new insights. First, given that the 2000 and 2016 elections were close races, these are substantively *large* estimates of NAFTA import-sensitivity on Democratic vote shares. This highlights the unfortunate, long-term, and persistent electoral consequences of taking ownership of a significant trade agreement. Second, while the heuristic function of party identity may serve to benefit candidates among low-information voters, I provide one of the few contexts in which party identity can backfire.

Import-sensitive counties with higher phaseout coverage did not punish Democratic candidates until the 2008 and 2012 presidential elections. This corresponds to the theoretical expectations, although with a couple of years of delay, as we would expect backlash to occur between 2000 and 2008. Even though tariffs may be eliminated, it may take several years for firms to completely offshore production abroad, which may account for the delay in electoral backlash. Voters may be able to correctly attribute the party at fault if they are provided information on where their jobs are being outsourced. While there is no existing research on voter awareness of the destination to which their jobs were offshored, one may reasonably assume that unions would be the source of such information (Kim and Margalit 2017; Ahlquist, Clayton, and Levi 2014). Additionally, TAA applications sometimes require information on where workers' jobs were offshored to, especially when the TAA Extension Act expires in which workers can only qualify for TAA if they lost job to an FTA partner.<sup>22</sup>

Figure 7 plots the marginal effect of phaseout coverage on the changes in democratic vote share, conditional on NAFTA import threat. For the 2008 presidential election, a one standard deviation increase in phaseout coverage is negatively and statistically significantly correlated with a lower Democratic vote share compared to 2004, when the district

<sup>&</sup>lt;sup>21</sup>The anti-Democratic candidate effect is also present for *Chinese Import Exposure* in 2016, echoing findings from Autor et al. (2020); Flaherty (2025*b*). See Figure A9.

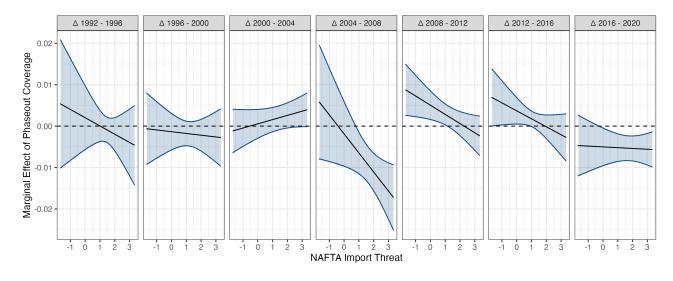
<sup>&</sup>lt;sup>22</sup>See USITC Executive Briefing on the Reversion 2014 provision and Congress.gov for the Reversion 2021 provision.

faces an import threat of at least 0.75 standard deviations above the mean. Substantively, in counties most sensitive to NAFTA imports, a one-standard-deviation increase in phase-out coverage is associated with at least a 1.5 percentage-point decrease in the Democratic vote share in 2008 compared to the 2004 election.

Interestingly, receiving more phaseout coverage actually benefited Democrats in the 2012 election, until the county's exposure to import threat from NAFTA is one standard deviation above the mean, at which point it becomes statistically insignificant. In other words, in counties least exposed to import threats, a one-standard-deviation increase in phaseout coverage is associated with roughly a one-percentage-point increase in the Democratic vote share.

#### [Figure 7 about here]

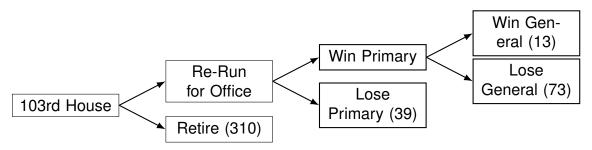
Figure 7: Marginal Effect of NAFTA Phaseout Coverage on Democratic Vote Share, Conditional on Import Threat



*Note:* See Table A2 for the regression table. Created by Author 8/25/25.

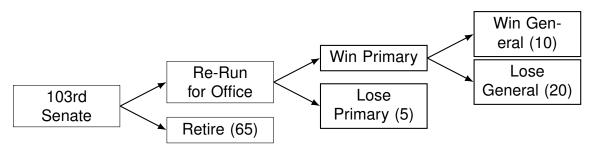
This section provides evidence to support hypotheses 2 and 3 and contributes new insights into the extent to which and the persistence of how international trade affects elections. First, the incumbent party that took ownership of NAFTA was penalized in import-sensitive areas with relatively minimal phase-out coverage; however, import-sensitive counties with greater phaseout coverage did not punish the incumbent. This evidence supports hypothesis 2. Second, democratic presidential candidates were punished immediately in import-sensitive areas with minimal phaseout coverage and in later elections in import-sensitive areas with more phaseout coverage, supporting hypothesis 3.

Figure 8: Political Fate of 103rd House Incumbents



*Note:* This flow chart summarizes the various ways in which 103rd House Representatives leave office across the following 15 subsequent elections (up until 2022 for general and 2018 for primary). Not all incumbents retire after 103rd Congress. See Figure A10 on instances and how the incumbents left office. Created by Author 8/26/25.

Figure 9: Political Fate of 103rd Senate Incumbents



*Note:* This flow chart summarizes the various ways in which 103rd House Representatives leave office over subsequent elections (up until 2020). Not all incumbents retire after 103rd Congress. See Figure A11 on instances and how the incumbents left office. Created by Author 9/26/25.

Furthermore, I demonstrate not only how tariff phaseouts can delay the electoral backlash, but also how sticky the association between NAFTA and the Democratic Party is in the mind of voters who were negatively affected by NAFTA. This opens up new avenues of research, such as how party linkage to foreign policy can be made salient far beyond the immediate aftermath.

# 6 Congressional Elections

This section examines the risk of Representatives and Senators exiting office after voting on NAFTA. Legislators can leave office through several means. First, they can retire or decide not to run for reelection, which comprises the vast majority of incumbents from the 103rd Congress. Second, they may exit office by being voted out of office either in the primary race or in the general election. Figure 8 and 9 summarize the political destinations of 103rd incumbents in the House and Senate, respectively.

Since the objective here is to examine the risk of leaving office, the outcome variable is characterized as the spell of time until the incumbent either retires or is voted out of office, measured in election periods. I employ an event history analysis,<sup>23</sup> using the Cox proportional hazard model, to examine the relationship between risk or hazard of retiring or being voted out and various covariates.

I code the spell of elections until *retirement* by identifying the first election in which an incumbent legislator is not running for office. Similarly, spell until being voted out of office is coded by the first election since 1993 in which the incumbent re-ran for office and lost either in the primary or general election. I combine all three codes into a general "exited" variable that codes when the incumbent exits the office, regardless of the means. Data on primary election results is from Pettigrew, Owen, and Wanless (2020) and Miller and Camberg (2021). Data on general election results is from MIT Election Data and Science Lab (2017).<sup>24</sup>

I employ five covariates to explain variation in survival duration. First, I use the Vote-View database to identify who voted to ratify NAFTA, as well as their party (Lewis et al. 2023). Second, I use legislator data from the Center for Effective Lawmaking (Volden and Wiseman 2014) to measure House member seniority by the number of terms they have served. Next, I control for *NAFTA Phaseout Coverage* and *NAFTA Import Threat*, as described above.

#### 6.1 House Incumbents

Table 1 presents a series of models with different modes in which representatives may exit political office. All coefficients are hazard ratios with robust standard errors in parentheses, in which a higher ratio corresponds to shorter durations until the event. Model 1 presents the risk of simply exiting office; models 2 and 3 focus on retirement; models 4-6 (7-9) examine the risks of being voted out in the primary (general) election.

First, legislators who voted to ratify NAFTA have a 53.5% higher risk of exiting political office; that is, there is a shorter duration until they exit office for legislators who supported NAFTA compared to legislators who opposed NAFTA. However, this relationship is primarily attributed to retirement rather than being voted out of office. In Model 2, legislators are 82.8% more likely to retire if they voted to ratify NAFTA. This relationship may be endogenous in that representatives who plan on retiring may have

<sup>&</sup>lt;sup>23</sup>Also known as duration or survival analysis.

<sup>&</sup>lt;sup>24</sup>Since Senate elections are every six years and are staggered, I manually hand-coded the number of elections until Senators exit office.

Table 1: Cox Proportional Hazards Models of NAFTA House Incumbent Survival  $^{a\ b\ c}$ 

-	Exited	Retired	Retired	VO (PRI)	VO (PRI)	VO (PRI)	VO (GEN)	VO (GEN)	VO (GEN)
NAFTA: YES	1.535***	1.832***	1.629*	0.977	1.719	1.393	0.984	0.375*	0.310*
	(0.167)	(0.234)	(0.327)	(0.352)	(1.129)	(0.974)	(0.257)	(0.169)	(0.152)
Democrat	1.287*	1.155	1.147	1.016	1.699	1.612	1.792+	0.863	0.824
	(0.143)	(0.147)	(0.146)	(0.371)	(1.072)	(1.046)	(0.509)	(0.316)	(0.304)
NAFTA Phaseout Coverage	0.897	0.878	0.875	0.723	0.770	0.753	0.875	0.809	0.662
	(0.068)	(0.079)	(0.079)	(0.193)	(0.205)	(0.459)	(0.143)	(0.141)	(0.251)
NAFTA Import Threat	1.143+	1.144	1.146	1.496+	1.389	1.617+	1.346+	1.481*	1.581*
	(0.085)	(0.101)	(0.101)	(0.366)	(0.347)	(0.427)	(0.232)	(0.266)	(0.294)
Seniority	1.018	1.048***	1.036+	0.964	0.965	0.964	0.982	0.978	0.977
	(0.012)	(0.015)	(0.021)	(0.044)	(0.044)	(0.045)	(0.030)	(0.030)	(0.030)
YES x Seniority			1.022						
			(0.029)						
YES x Democrats					0.393	0.518		3.893*	4.801**
					(0.331)	(0.457)		(2.098)	(2.778)
YES x Phaseout						0.403			0.537
						(0.317)			(0.353)
Phaseout x Democrats						1.146			1.280
						(0.703)			(0.493)
YES x Phaseout x Democrats						1.976			1.787
						(1.770)			(1.235)
Num.Obs.	433	433	433	433	433	433	433	433	433
AIC	4342.8	3150.5	3151.9	403.8	404.5	406.7	791.3	787.2	790.1
BIC	4363.2	3170.8	3176.3	424.1	428.9	443.4	811.6	811.6	826.8
RMSE	1.00	0.85	0.85	0.29	0.29	0.29	0.41	0.41	0.41

<sup>&</sup>lt;sup>a</sup>Hazard Ratios are displayed. Robust standard errors in parentheses.

<sup>&</sup>lt;sup>b</sup>Signif. Codes: \*\*\*: p < 0.001, \*\*: p < 0.01, \*: p < 0.05, +: p < 0.1<sup>c</sup>"VO" = "Voted Out." "PRI" refers to NAFTA House incumbent being voted out during the Primary Election, while "GEN" refers to being voted out in the General Election. See Table ?? for the analysis on whether the incumbent is voted out in the primary election.

weaker protectionist constraints; that is, if they were to suffer electoral consequences from supporting NAFTA, it would not have mattered much given their impending retirement. Alternatively, these legislators may have become so unpopular among their constituents due to their position on NAFTA that they decide not to run for reelection.

To distinguish between the two mechanisms, I interact legislators' support for NAFTA with their seniority. Seniority, on its own, is correlated with a higher risk of retirement, whereas it is insignificant in all other models. The interaction term is not significant, meaning that more senior representatives who voted "yes" are not at a higher risk of retiring. Rather, the evidence points toward *junior* representatives who voted to ratify NAFTA are more at risk of "retiring." This provides strong evidence to support the speculation that junior representatives became so unpopular among their constituents that it was not feasible to run for reelection. The null results for NAFTA support and the hazard of being voted out in the primary election in Models 4-6 support the conclusion that the incumbent *selects* into running for reelection if there is sufficient support for them in the primary race.

While NAFTA-supporting legislators are not at a higher risk of being voted out in the primary election, I find strong evidence suggesting that Democratic representatives who voted to ratify NAFTA are at 289% higher risk of being voted out in the general election (Model 8). On the other hand, Republican representatives who voted to ratify NAFTA are 62.5% less likely to be voted out of office. This supports the conventional view that Democrats are generally more protectionist than Republicans; hence, representatives who deviated from the position by voting to support free trade are punished by their constituents.

Does having higher phaseout coverage help insulate Democratic representatives who supported NAFTA from electoral consequences? The lack of statistical significance in the triple interaction term in Model 9 suggests that this may be the case. While Democrats who voted to ratify NAFTA with minimal phaseout coverage (held at the mean, which is about 8% of the district is covered by phaseout) are now 380% more likely to be voted out of office, those who ratified NAFTA with higher phaseout coverage are no more likely to be voted out of office. This lends strong evidence on the electoral insulation effects of tariff phaseouts.

#### **6.2** Senate Incumbents

Table 2 displays the survival analysis results for the 100 Senators who voted on NAFTA. Here, voting to ratify NAFTA is not significantly correlated with a higher risk of exit-

ing, retiring, or being voted out (Models 1-4). However, Democrats who voted to ratify NAFTA with minimal phaseout coverage are 455% more likely to be voted out of office in the general election (Model 6). Democrats who supported NAFTA with phaseout coverage are no more likely to be voted out of office.

Table 2: Cox Proportional Hazards Models of NAFTA Senate Incumbent Survival <sup>a b c</sup>

Exited	Retired	Retired	VO (GEN)	VO (GEN)	VO (GEN)
0.883	0.964	0.831	0.390	0.190*	0.179*
(0.236)	(0.302)	(0.413)	(0.210)	(0.127)	(0.121)
1.000	1.224	1.214	0.530	0.269*	0.259*
(0.247)	(0.353)	(0.352)	(0.274)	(0.169)	(0.163)
1.037	1.033	1.065	0.877	0.875	0.796
(0.216)	(0.256)	(0.276)	(0.375)	(0.366)	(0.384)
1.032	0.959	0.936	1.363	1.369	1.461
(0.193)	(0.215)	(0.218)	(0.547)	(0.555)	(0.604)
1.027	1.067*	1.058 +	0.907	0.903	0.901
(0.025)	(0.029)	(0.038)	(0.060)	(0.059)	(0.059)
		1.022			
		(0.058)			
				4.586	5.551+
				(4.185)	(5.180)
					0.549
					(0.430)
					1.255
					(0.713)
					3.595
					(4.152)
100	100	100	100	100	100
705.3	514.8	516.6	169.1	168.4	172.0
718.3	527.8	532.3	182.1	184.1	195.4
0.93	0.79	0.79	0.44	0.45	0.45
	0.883 (0.236) 1.000 (0.247) 1.037 (0.216) 1.032 (0.193) 1.027 (0.025)	0.883	0.883       0.964       0.831         (0.236)       (0.302)       (0.413)         1.000       1.224       1.214         (0.247)       (0.353)       (0.352)         1.037       1.033       1.065         (0.216)       (0.256)       (0.276)         1.032       0.959       0.936         (0.193)       (0.215)       (0.218)         1.027       1.067*       1.058+         (0.025)       (0.029)       (0.038)         1.022       (0.058)         100       100       705.3         514.8       516.6         718.3       527.8       532.3	0.883         0.964         0.831         0.390           (0.236)         (0.302)         (0.413)         (0.210)           1.000         1.224         1.214         0.530           (0.247)         (0.353)         (0.352)         (0.274)           1.037         1.033         1.065         0.877           (0.216)         (0.256)         (0.276)         (0.375)           1.032         0.959         0.936         1.363           (0.193)         (0.215)         (0.218)         (0.547)           1.027         1.067*         1.058+         0.907           (0.025)         (0.029)         (0.038)         (0.060)           1.022         (0.058)           0.058)	0.883       0.964       0.831       0.390       0.190*         (0.236)       (0.302)       (0.413)       (0.210)       (0.127)         1.000       1.224       1.214       0.530       0.269*         (0.247)       (0.353)       (0.352)       (0.274)       (0.169)         1.037       1.033       1.065       0.877       0.875         (0.216)       (0.256)       (0.276)       (0.375)       (0.366)         1.032       0.959       0.936       1.363       1.369         (0.193)       (0.215)       (0.218)       (0.547)       (0.555)         1.027       1.067*       1.058+       0.907       0.903         (0.025)       (0.029)       (0.038)       (0.060)       (0.059)         1.022       (0.058)         4.586       (4.185)          100       100       100       100         705.3       514.8       516.6       169.1       168.4         718.3       527.8       532.3       182.1       184.1

<sup>&</sup>lt;sup>a</sup>Hazard Ratios are displayed. Robust standard errors in parentheses.

Put together, the results from the House and Senate incumbent survival analysis provide broad support for the 4th hypothesis. That is, tariff phaseouts can mitigate the electoral consequences for both House representatives and senators, making tariff phaseouts a seemingly valuable provision. Its value is twofold: it insulates incumbents who would face electoral backlash at the polls; furthermore, because of its political insulation effects, negotiators can use tariff phaseouts to buy legislators' votes on ratification by offsetting the political costs of supporting free trade.

<sup>&</sup>lt;sup>b</sup>Signif. Codes: \*\*\*: p < 0.001, \*\*: p < 0.01, \*: p < 0.05, +: p < 0.1

<sup>&</sup>lt;sup>c</sup>"VO" = "Voted Out." "GEN" refers to being voted out in the General Election. *NAFTA: YES* is coded 1 if the senator voted "yes", and 0 for anything else, including abstaining. I omitted the "Voted out in the primary election" dependent variable due to not having enough variations, leading to overinflated estimates.

# 7 Conclusion

This paper provides credible evidence that tariff phaseouts delay and sometimes mitigate the employment and political consequences of trade liberalization using the case of NAFTA. Industry employment declines later for industries with longer phaseouts. As a result, import-sensitive counties with more workers covered by tariff phaseouts do not punish the incumbent president in 1996 nor the party in the 2000 election. However, such political insulation for democratic presidential candidates weakens when tariffs are fully phased out. For congressional incumbents, Democratic legislators who supported NAFTA were more likely to be voted out of office earlier than Republican legislators; however, having more of one's district covered by the tariff phaseout moderated this risk entirely.

In addition to my hypothesis tests, I find that counties most impacted by NAFTA correctly attribute the blame to Democrats in the short and long run; surprisingly, I also find that party ownership over NAFTA is extremely sticky in the consciousness of those hurt by it. While party identification and party ownership of issues have been shown to help parties among low-information voters (Campbell et al. 1976; Wright 2012), this paper provides a context in which taking ownership of a major trade agreement as a Democrat can backfire.

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# A.1 Appendix

# A.1.1 Data

Figure A1: Tariff Schedule Example from US-Australia FTA

HTSUS (2004	) DESCRIPTION	BASE RATE	STAGING CATEGOR
711.20	-Olives:		
	Not pitted:		
	Green in color, in a saline solution, in containers each holding more than 8 kg, drained weight, certified by the		
	importer to be used for repacking or sale as green olives:		
711.20.18	Described in additional U.S. note 5 to this chapter and entered pursuant to its provisions	3.7 cents/kg on	Α
711.20.28	Other	drained weight 5.9 cents/kg on	٨
/11.20.28	Otner	drained weight	Α
711.20.38	Other	5.9 cents/kg on	Α
		drained weight	
711.20.40	Pitted or stuffed	8.6 cents/kg on	Α
		drained weight	
711.30.00	-Capers	8%	В
711.40.00	-Cucumbers including gherkins	7.7%	В
	-Mushrooms and truffles:		_
711.51.00	Mushrooms of the genus Agaricus	5.7 cents/kg on drained weight +	D
		8%	
711.59	Other:		
711.59.10	Mushrooms	5.7 cents/kg on	D
		drained weight +	
		8%	
711.59.90	Other	7.7%	В
711.90	-Other vegetables; mixtures of vegetables:		
711.90.20	Leguminous vegetables	Free	E
711.90.50	Onions	5.1%	В
711.90.65	Other vegetables; mixtures of vegetables	7.7%	В
712	Dried vegetables, whole, cut, sliced, broken or in powder, but not further prepared:		
712.20	-Onions:		_
712.20.20	Powder or flour	29.8%	F
712.20.40	Other	21.3%	F
740.04	-Mushrooms, wood ears (Auricularia spp.), jelly fungi (Tremella spp.) and truffles:		
712.31	Mushrooms of the genus Agaricus:	4.0	<b>A</b>
712.31.10	Air dried or sun dried	1.3 cents/kg + 1.8%	Α
712.31.20	Other	1.9 cents/kg +	Α
		2.6%	.,

*Note:* 

# A.1.2 Misc.

[Figure A5 about here]

[Figure A6 about here]

[Figure A7 about here]

Table A1: Changes in Incumbent Vote Share in Percentage Points

Dependent Variables:	Δ 1992-1996	Δ 1996-2000
Model:	(1)	(2)
Variables		
NAFTA Import Threat	-0.010**	-0.009***
1	(0.004)	(0.003)
NAFTA Phaseout Coverage	0.002	-0.001
O	(0.004)	(0.002)
NAFTA Import Threat × NAFTA Phaseout Coverage	-0.002	-0.0004
•	(0.002)	(0.001)
NTR Gap	$0.006^{*}$	$0.006^{**}$
-	(0.004)	(0.003)
Chinese Import Exposure (2SLS)	0.003	0.001
	(0.002)	(0.002)
Incumbent Vote Share (t-1)	0.079***	-0.046***
	(0.028)	(0.017)
$\Delta$ Unemployment Rate	-0.004**	-0.0007
	(0.002)	(0.002)
$\Delta$ Labor Force	-0.002	0.0010
	(0.001)	(0.002)
$\Delta$ Income per capita	-0.003**	0.0008
	(0.001)	(0.002)
Prop. Black <i>t</i>	-0.005	0.008*
	(0.007)	(0.004)
Prop. White t	-0.020***	-0.009*
	(0.007)	(0.005)
Prop. Male t	-0.002	-0.008***
D C 11 / D 1 1 /	(0.002)	(0.001)
Prop. College w/ Bachelor t	-0.001	0.012***
A 1000 1007	(0.001)	(0.001)
Δ 1992-1996		0.120***
		(0.040)
Fixed-effects		
State	$\checkmark$	✓
Fit statistics		
Observations	2,976	2,968
$R^2$	1.00	1.00
Within $R^2$	1.00	1.00

Clustered (State) standard-errors in parentheses

Signif. Codes: \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

Note: Unit of observation is county. Standard errors are corrected for clustering at the state level.

Figure A2: Description of Staging Categories from US-Australia FTA

# ANNEX 2-B TARIFF ELIMINATION

- 1. <u>Base Rates of Customs Duty</u>. Except as otherwise indicated, the base rates of customs duty set forth in this schedule reflect the HTSUS Column 1 General rates of duty in effect January 1, 2004, for the United States and the general rates of duty in Schedule 3 to the Australian Customs Tariff Act 1995, in effect January 1, 2004, for Australia.
- 2. <u>Staging</u>. Except as otherwise provided in a Party's Schedule attached to this Annex, the following staging categories apply to the elimination of duties by each Party pursuant to Article 2.3:
  - (a) duties on goods provided for in the items in staging category A shall be eliminated entirely and such goods shall be duty-free on the date this Agreement enters into force;
  - (b) duties on goods provided for in the items in staging category B shall be removed in equal annual stages beginning on the date this Agreement enters into force, and such goods shall be duty-free, effective January 1 of year four;
  - duties on goods provided for in the items in staging category C shall be removed in equal annual stages beginning on the date this Agreement enters into force, and such goods shall be duty-free, effective January 1 of year eight;
  - (d) duties on goods provided for in the items in staging category D shall be removed in equal annual stages beginning on the date this Agreement enters into force, and such goods shall be duty-free, effective January 1 of year ten; and
  - (e) goods provided for in staging category E shall continue to receive duty-free treatment.

*Note:* 

#### A.1.3 Presidential Elections

[Figure A8 about here]

[Figure A9 about here]

# A.1.4 Congressional Elections

[Figure A10 about here]

Table A2: Changes in Democratic Two-Party Vote Share in Percentage Points

Dependent Variables: Model:	Δ 1992-1996	Δ 1996-2000	Δ 2000-2004	Δ 2004-2008	Δ 2008-2012	Δ 2012-2016	Δ 2016-2020
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Variables							
NAFTA Import Threat	-0.010**	-0.009***	0.004	-0.004	-0.003*	-0.008***	0.0006
NIAETA Dhagagut Cayanaga	(0.004) 0.002	(0.003)	(0.003)	(0.005)	(0.001) 0.005***	(0.003) 0.004**	(0.001)
NAFTA Phaseout Coverage	(0.002)	-0.001 (0.002)	0.0005 (0.002)	-0.002 (0.004)		(0.002)	-0.005**
NAFTA Import Threat × NAFTA Phaseout Coverage	-0.002	-0.0004	0.002)	-0.005**	(0.002) -0.002**	-0.002	(0.002) -0.0002
NATA Import Tilleat × NATA Thaseout Coverage	(0.002)	(0.001)	(0.0007)	(0.002)	(0.0010)	(0.001)	(0.0010)
NTR Gap	0.006*	0.006**	-0.006*	0.0007	-0.0003	0.006**	-0.002
TVIR Gup	(0.004)	(0.003)	(0.003)	(0.003)	(0.002)	(0.003)	(0.002)
Chinese Import Exposure (2SLS)	0.003	0.001	0.005	0.0005	0.0007	-0.005***	0.002
	(0.002)	(0.002)	(0.004)	(0.002)	(0.001)	(0.002)	(0.003)
Dem Vote Share (t-1)	-0.079***	-0.046***	-0.039**	-0.066	0.029	-0.037	-0.155***
( ),	(0.028)	(0.017)	(0.015)	(0.055)	(0.019)	(0.038)	(0.022)
Δ Unemployment Rate	-0.004**	-0.0007	0.005**	0.006***	0.001	0.0005	-0.003**
1 3	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Δ Labor Force	-0.002	0.0010	-0.004**	0.007***	0.004***	0.008***	0.005***
	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.0009)
Δ Income per capita	-0.003**	0.0008	0.002	-0.011**	-0.002	-0.004	-0.004**
	(0.001)	(0.002)	(0.001)	(0.004)	(0.001)	(0.003)	(0.002)
Prop. Black t	-0.005	0.008*	0.013***	0.017***	-0.003	0.019**	0.019***
	(0.007)	(0.004)	(0.003)	(0.006)	(0.003)	(0.008)	(0.004)
Prop. White <i>t</i>	-0.020***	-0.009*	0.004	0.002	-0.011***	0.004	0.007
	(0.007)	(0.005)	(0.004)	(0.006)	(0.002)	(0.008)	(0.005)
Prop. Male t	-0.002	-0.008***	0.002	-0.003	-0.002	-0.004*	-0.002***
	(0.002)	(0.001)	(0.001)	(0.002)	(0.001)	(0.002)	(0.0009)
Prop. College w / Bachelor t	-0.001	0.012***	0.014***	0.003	-0.003**	0.031***	0.013***
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Δ 1992-1996		0.120***					
		(0.040)					
Δ 1996-2000			-0.023				
			(0.042)				
Δ 2000-2004				0.264***			
				(0.079)			
Δ 2004-2008					0.065		
4 2000 2012					(0.048)	0.015	
Δ 2008-2012						0.215	
A 2012 2016						(0.137)	0.116***
Δ 2012-2016							(0.037)
Fixed-effects							(/
State	$\checkmark$	$\checkmark$	✓	✓	$\checkmark$	✓	$\checkmark$
Fit statistics							
Observations	2,976	2,968	2,968	2,979	2,979	2,979	2,979
$\mathbb{R}^2$	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Within R <sup>2</sup>	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Clustered (State) standard-errors in parentheses Signif. Codes: \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

*Note:* Unit of observation is county. Standard errors are corrected for clustering at the state level.

Figure A3: Description of US-Specific Staging Categories from the Head Note of US-Australia FTA

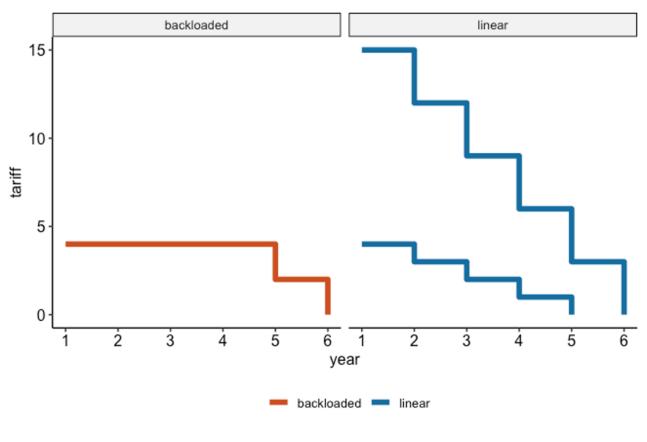
- 4. <u>Staging</u>. The following staging categories apply to the elimination of customs duties by the United States pursuant to Article 2.3 (Elimination of Duties):
  - (a) Duties on goods provided for in subheadings 2918.90.20, 8111.00.47 and 8111.00.49 shall be removed in equal annual stages beginning on the date this Agreement enters into force, and such goods shall be duty free, effective January 1, 2010;
  - (b) Duties on goods provided for in the items in staging category **F** shall be removed in eighteen equal annual stages beginning on the date this Agreement enters into force, and such goods shall be duty-free, effective January 1 of year eighteen.
  - (c) Duties on goods provided for in the items in staging category G shall remain at base rates during years one through six. Duties on these goods shall be reduced by 5.6 percent of the base rate on January 1 of year seven and by an additional 5.6 percent of the base rate on January 1 of each year thereafter through year twelve. Beginning January 1 of year thirteen, duties on these goods shall be reduced by an additional 11.1 percent of the base rate annually through year eighteen and shall be duty-free effective January 1 of year eighteen.
  - (d) Duties on goods provided for in the items in staging category H shall remain at base rates during years one through eight. Duties on these goods shall be reduced by 6.7 percent of the base rate on January 1 of year nine and by an

Annex 2B-US-Notes-1

Note:

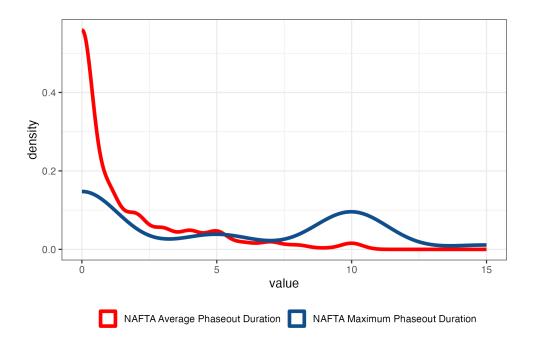
[Figure A11 about here]

Figure A4: Example of Linear and Backloaded Phaseout "Shape"



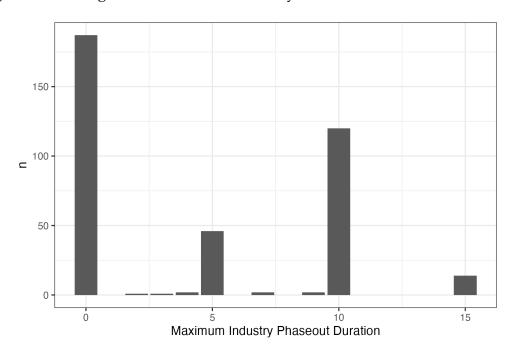
Note:

Figure A5: Density Plot of Average and Maximum Industry Phaseout Duration From NAFTA



Note: Created by Author 9/23/25.

Figure A6: Histogram of Maximum Industry Phaseout Duration From NAFTA



*Note:* Created by Author 9/23/25.

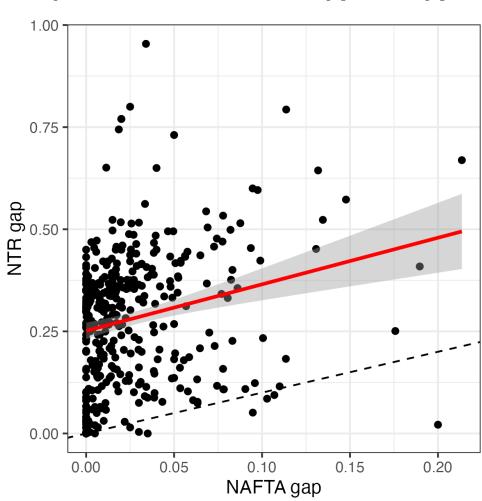


Figure A7: Correlation between NAFTA gap and NTR gap

 $\it Note:$  The correlation coefficient between the two measures is 0.22. Created by Author 9/23/25.

NAFTA Import Threat NAFTA Import Threat x PO Coverage NAFTA Phaseout Coverage Chinese Import Exposure (2SLS) Δ 1996 - 2000 · Δ 1992 - 1996 --0.005 0.000 -0.010 -0.0050 -0.0025 0.0000 0.0025 -0.005 0.000 0.005 0.010-0.0025 0.0000 0.0025 0.0050 NTR Gap Δ Incumbent Vote Share (lagged) Incumbent Vote Share (t-1) Δ Unemployment Rate Δ 1996 - 2000 · Δ 1992 - 1996 0.000 0.005 0.010 0.00 0.05 0.10 0.15 0.20 -0.05 0.00 0.05 0.10 -0.0075 -0.0050 -0.0025 0.0000 0.002 Δ Labor Force Δ Income per capita % Male % White Δ 1996 - 2000 · Δ 1992 - 1996 -0.0000 0.0025 0.00500006 -0.003 0.000 0.003 -0.0100-0.0075-0.0050-0.0025 0.0000 -0.03 -0.02 0.00 -0.01 % Black % College w/ Bachelor Δ 1996 - 2000 · Δ 1992 - 1996 · 0.01 -0.01 0.00 0.000 0.005 0.010 0.015 Estimates Not Significant Significant (95%)

Figure A8: Changes in Incumbent Party Vote Share in Percentage Points

*Note:* See Table A1 for the regression table. Created by Author 9/26/25.

NAFTA Import Threat NAFTA Import Threat x PO Coverage NAFTA Phaseout Coverage Chinese Import Exposure (2SLS) Δ 2016 - 2020  $\Delta$  2012 - 2016 Δ 2008 - 2012 Δ 2004 - 2008 Δ 2000 - 2004 Δ 1996 - 2000 Δ 1992 - 1996 -0.02 -0.01 0.00 -0.006 -0.003 0.000 0.000.010 -0.005 0.000 0.005 0.010 -0.005 0.000 0.005 0.010 NTR Gap Δ Dem Vote Share (lagged) Dem Vote Share (t-1) Δ Unemployment Rate Δ 2016 - 2020  $\Delta$  2012 - 2016 Δ 2008 - 2012 Δ 2004 - 2008 Δ 2000 - 2004 Δ 1996 - 2000 Δ 1992 - 1996 -0.010 -0.005 0.000 0.005 0.010 -0.1 0.0 0.1 0.2 0.3 0.4 0.5-0.2 -0.005 0.000 0.005 0.010 Δ Labor Force △ Income per capita % Male % White Δ 2016 - 2020  $\Delta$  2012 - 2016 Δ 2008 - 2012  $\Delta$  2004 - 2008 Δ 2000 - 2004 Δ 1996 - 2000 Δ 1992 - 1996 -0.005 0.000 0.005 0.010 -0.015 -0.010 -0.005 0.000 0.0050.010 -0.005 0.000 0.005 -0.02 0.00 0.02 % College w/ Bachelor % Black Δ 2016 - 2020  $\Delta$  2012 - 2016 Δ 2008 - 2012 Δ 2004 - 2008 Δ 2000 - 2004 Δ 1996 - 2000 Δ 1992 - 1996 · -0.02 0.00 0.02 0.00 0.01 0.02 0.03 Estimates

Figure A9: Changes in Democratic Two-Party Vote Share in Percentage Points

Note: See Table A2 for the regression table. Created by Author 8/25/25.

Not Significant - Significant (95%)

Figure A10: How House Incumbents Exited Office After NAFTA

*Note:* Created by Author 8/26/25.

20
10
20
20
20
3
Senate Elections after 103rd Congress

Variable Retired Voted Out (PRI) Voted Out (GEN)

Figure A11: How Senate Incumbents Exited Office After NAFTA

*Note:* Created by Author 9/24/25.