#### THE UNIVERSITY OF CHICAGO

#### BUREAUCRATIC BEHAVIOR IN THE POLITICAL ECONOMY OF TRADE

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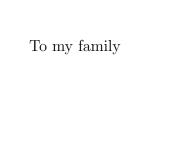
#### DEPARTMENT OF POLITICAL SCIENCE

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#### ABSTRACT

Career bureaucrats forge foreign policy at domestic agencies and international economic organizations. They are neither elected nor appointed, yet they implement policies and mediate negotiations. This three-paper dissertation answers the questions of how the career incentives of bureaucrats affect their responsiveness to principals, and how the implementation of policies by bureaucrats, in turn, affects elections. The first paper examines how bureaucrats allocate trade assistance benefits to workers in response to conditional tenure, an employment institution used in United States federal bureaucracies. Exploiting the quasi-random assignment of Trade Adjustment Assistance (TAA) petitions to individual investigators at different stages of their careers, I demonstrate that career bureaucrats, when they are untenured, are less likely to certify TAA petitions and are more likely to delay investigations during Republican presidencies relative to Democratic presidencies. The second paper investigates the impact of trade-related compensation on elections. Using the leniency of career bureaucrats who certify TAA petitions as an instrument, I find that access to TAA builds electoral support in hard-hit areas, but not in areas where the program may be more informative about the costs of globalization. The third paper turns the focus to bureaucrats who hold appointments at an international organization (IO). There, I show that transparency, an institution partly designed to improve the bureaucrats' accountability to all member states, can deteriorate the performance and quality of bureaucrats. My formal model predicts that competent international bureaucrats in equilibrium either remain silent during mediation or choose not to work at an IO when transparency is high. The theoretical prediction is supported with a comparative case study of the leadership of the GATT (General Agreement on Tariffs and Trade) and the relatively more transparent World Trade Organization (WTO). By analyzing how bureaucrats respond to institutions that shape their career incentives, the papers together illuminate the importance of institutional design in understanding government responses to globalization.

#### CHAPTER 1

#### INTRODUCTION

Elected officials craft foreign policies in democracies, but they often delegate a significant portion of that task to bureaucrats. In many cases, foreign policy-focused bureaucrats are career bureaucrats. They are insulated from politics, being neither elected nor appointed. With the delegated authorities, career bureaucrats implement what is legislated and help negotiate abroad. In either case, their choices directly shape public interests and the distribution of resources.

In democracies, career bureaucrats serve two masters, their employer (elected officials) as well as the public. On one hand, their career success depends on their alignment with the employer (Adolph, 2013; Moe, 1989). On the other hand, they are expected to design and implement policies in a way that serves public interests. In particular, they are supposed to act impartially in a timely manner to deliver services to the people (Denhardt and Denhardt, 2000; Wilson, 1887).

This dissertation investigates how career bureaucrats reflect the relative weight of career and public interests in their performance in the realm of trade policy. I examine trade policy in particular because existing studies in international economics (Grossman and Helpman, 1992; Heckscher, 1919; Stolper and Samuelson, 1941) theorize key concepts such as public interests, deviations from the public interests, and subsequent winners and losers from such deviations. These workhorse models in international trade allow me to theorize and quantify the extent to which career bureaucrats deviate from public interests and its subsequent consequence in policy design and implementation.

My study on the contest between career and public interests demonstrates the importance of institutional design. Throughout the dissertation, I show that institutional design can shape the degree to which career bureaucrats are held accountable to elected officials, and this accountability to elected officials can compromise efficient allocation of resources in the end. Existing research in Public Administration examines how an employment institution affects the performance of bureaucrats (Lewis, 2007; Gallo and Lewis, 2012; Miller, 2014; Vermeeren, 2017; Fuenzalida and Riccucci, 2019), but in the previous research, it is unclear how the performance of bureaucrats, in turn, affects public interests. This limitation is partly explained by the methodological approaches in the existing literature. Standardized performance metrics are often used as measurements of the performance of bureaucrats (Lewis, 2007; Gallo and Lewis, 2012; Miller, 2014), but the performance metrics blur context-specific policy outcomes to the public. Surveys completed by bureaucrats are also widely used to understand how bureaucrats respond to employment institutions (Vermeeren, 2017; Fuenzalida and Riccucci, 2019), but the survey results are inherently the measurements of perceived effectiveness rather than observed policy consequences. I address the limitation by linking the daily performance of bureaucrats to the people's access to policy benefits.

In the first paper "How Bureaucrats Represent Economic Interests: Partisan Control over Trade Adjustment Assistance," I show how conditional tenure affects the degree to which career bureaucrats perform in a way that favors the president's political party. To answer this question, I assess how bureaucrats as individuals throughout their careers implement a policy that has been consistently endorsed by the Democratic party. In particular, I examine how career bureaucrats allocate benefits from Trade Adjustment Assistance (TAA), the single largest federal program in the United States to compensate workers displaced by international trade. Through the Freedom of Information Act request, I obtained a dataset consisting of the universe of 84,165 TAA petitions over a 45-year period. Using the dataset, I trace the career trajectories and performance of 265 career bureaucrats within the Office of Trade Adjustment Assistance (OTAA).

I find that OTAA investigators are less likely to certify TAA petitions and more likely to delay petition investigations during Republican presidencies relative to Democratic presidencies. This partisan responsiveness, however, applies uniquely to untenured investigators, and increases in magnitude during periods of high alignment between labor and the Democratic party. By analyzing within-bureaucrat performance over time, I demonstrate that this conditional tenure mechanism drives partisan responsiveness independently from how the bureaucrats are selected and recruited. Considering that TAA is a program to compensate those who are hurt by globalization, the results indicate that political sustainability of globalization depends on the design of the bureaucracy.

In the second paper "Certifying Threat: The Electoral Logic of Economic Relief", I formally and empirically document the electoral consequences of providing assistance in hard times. It is widely understood that compensating trade losers helps build electoral support for globalization (Margalit, 2011). However, in practice, pro-globalization platforms do not expand assistance to the needy as much as expected given the alleged electoral benefits (Autor et al., 2013). I argue that this mismatch is what I term the consternation effect, in which citizens can infer the negative effects of globalization from the choice to offer the assistance.

Using a two-period signaling game, I predict that pro-globalization politicians will underprovide compensation to avoid an electoral backlash. This theoretical intuition is then tested
with data from the TAA program and the 2008 presidential election. As the extent of
TAA compensation is endogenous to local economic harm and strategic calculations on the
part of politicians, I construct an instrument. This instrument leverages the leniency of
TAA certifying officers, the career bureaucrats who determine approval of TAA petitions
in the final stage. TAA petitions are randomly assigned to certifying officers, and this
arbitrary allocation forces politicians to face constituents with both more and less than
optimal compensation. I empirically find that in communities with low levels of import
penetration, a ten percent increase in the TAA certification rates decreases support for the
incumbent party candidates by 3.8 percent. The electoral backlash of 3.8 percent implies
that politicians will sometimes forgo providing assistance to their constituencies if doing so

prevents constituencies from learning about the local economy's s decline.

In the third paper, entitled "Who Wants to Work at a Transparent International Organization?," I develop a formal model to delineate how transparency as an institutional feature undermines the quality and performance of the international bureaucrats. IOs have become more transparent in recent years in order to legitimize their authority through democratic procedures. Whereas previous studies examine how member states would or would not cooperate under transparency (Keohane, 1984; Stasavage, 2004), I inspect whether transparency might deter international cooperation by conditioning the incentives of international bureaucrats.

The core insight of the third paper is that international bureaucrats might underperform under conditions of increased transparency. International bureaucrats often value their reputation for impartiality, for example, to enhance creditability to their member states. Yet some of their key tasks such as mediation invariably involve favoring one side over the other. In such settings, transparency may undercut international bureaucrats' incentives to offer substantive resolutions by exposing them to constant scrutiny and pressure from organized political interests. My formal model predicts that international bureaucrats under transparency exert less effort as a mediator when the bias necessary to conclude a negotiation is sufficiently big. From the model, I additionally derive a long-term pessimistic consequence of transparency; competent international bureaucrats in equilibrium end up not working at IOs. I test one of the theoretical intuitions with the comparative case study of the leadership of the GATT and the relatively more transparency WTO, the leadership of Director General Eric Wyndham White and Supachai Panitchpakdi. The findings together suggest that the international bureaucrats adapt to the institutional design chosen by member states, and such adaptation makes an IO less appealing as a negotiating forum.

The papers together provide three insights. First, I illuminate the importance of career incentives in explaining how bureaucrats behave. In comparison to the studies in the

past that focus on bureaucrats' predetermined characteristics such as gender, nationality, and educational background (Naurin et al., 2019; Arias, 2019; Nelson, 2014), I show how the structure that governs their career incentives matters. My findings indicate that the theoretical approach of classifying bureaucrats either as loyalists or technocrats based on their preferences at a certain point in their careers can be problematic in explaining how bureaucrats design and implement policies over time. Scholars have extensively studied career incentives of bureaucrats, but the previous discussions were centered around the subfields of American Politics (Hall, 2001; Hess, 2011; Miller, 2014) and Comparative Politics (Kung and Chen, 2011; Adolph, 2013; Xu, 2018; Rivera, 2020; Bertrand et al., 2020). In this dissertation, I bring in career incentives of bureaucrats to understand outcomes in foreign policymaking and international organizations.

Second, I demonstrate that the career-mindedness of bureaucrats can hurt an efficient allocation of resources. Literature on bureaucratic incentives has limited insights on outcomes at the macro-level (Carpenter, 2001; Downs, 1967; Golden, 2000; Bertrand et al., 2020), and literature on bureaucratic outcomes blurs individual-level incentives of bureaucrats at the micro-level (Stigler, 1971; Barnett and Finnemore, 2004; Yackee and Yackee, 2006). The former explains what motivates bureaucrats to do their jobs, but does not link their performance to a subsequent outcome of who benefits and loses from such performance. The latter clarifies channels of how bureaucrats allocate resources but does not connect resource allocation with incentives of individual bureaucrats. Combining the macro-and micro-level analyses, I offer theory and evidence that institutional design changes the incentives of bureaucrats, and the changed incentives of bureaucrats can lead them to behave in a way that undermines efficient resource allocation.

Third, my papers indicate that government responses to globalization systemically depend on an institutional design. Whereas existing studies on bureaucratic politics in foreign policy focus on the position of the bureaucratic agencies vis-a-vis other branches of the government (Allison, 1969; Yarhi-Milo, 2013) or agency design (Halperin and Clapp, 2007; Milner and Tingley, 2015), I show institutions that govern incentives of bureaucrats working there shape how governments maintain (or fail to maintain) support for globalization. The results suggest that depending on how the government designs career institutions, bureaucrats adapt their behavior accordingly, and such adaptation shapes the government responses to globalization.

Policy-wise, this dissertation helps guide the design of institutions that can produce more effective government responses to globalization. I clarify the trade-offs in domestic and international institutions that shape career incentives of bureaucrats, and derive implications for designing better institutions that underpin globalization. The first paper, for example, delineates the distributional consequence of conditional tenure. Conditional tenure allows governments to control the quality of bureaucrats by providing them time-specific rewards, but the time-specific rewards can generate partisan compensation which in the end can frustrate the consistent compensation to the needed. The finding implies that an institutional design without the time-specific reward to bureaucrats, such as seniority-based promotion, can be advantageous for effective government responses to globalization. Turning to an international institution, the third paper elucidates the trade-off of increasing transparency in international organizations. Transparency can enhance equity in international organizations by encouraging international bureaucrats to be more accountable to all member states, but it can discourage their active mediation during negotiations. As a result, member states under increased transparency would face greater challenges in concluding negotiations. The tradeoff suggests that especially for international organizations that provide negotiation forums, sacrificing transparency can be worthwhile to deepen international cooperation. A choice to adopt an institution with a good intention can generate unintended consequences through changing the incentives of bureaucrats.

#### CHAPTER 2

# HOW BUREAUCRATS REPRESENT ECONOMIC INTERESTS: PARTISAN CONTROL OVER TRADE ADJUSTMENT ASSISTANCE

Maintaining political support for globalization is difficult because international trade generates unemployment in import-competing sectors. Consistent government compensation to the unemployed is a social safety net that helps reduce opposition to globalization (Ruggie, 1982; Rodrik, 2018). To ensure consistent compensation, governments often rely on the professional bureaucracies in allocating compensation benefits. The underlying expectation is that career bureaucrats, who are neither elected nor appointed, can distribute compensation to those most in need when sufficiently insulated from political interests.

In this paper, I show how the president can induce responsiveness in career bureaucrats which in the end inhibits the consistent compensation to those in need. I argue that appointment contracts motivate rank-and-file bureaucrats to behave more responsively at particular times in their career. To validate how their compliance changes over time, I examine a particular policy in international trade, Trade Adjustment Assistance (TAA). This is a federal redistributive program in the United States designed to provide monetary assistance to workers in import-competing sectors. Since the Department of Labor (DOL) has administered this program, TAA has spent \$32.5 billion<sup>1</sup> and has compensated 5.35 million workers in the past 45 years. This program is the United States' largest and longest-standing program to assist workers hurt by globalization.

I offer evidence that untenured, early-career bureaucrats use the party affiliation of the president to guide their decision making. This partisan behavior is enabled, in particular, by employment institutions that grant permanent appointments only after three years of

<sup>1.</sup> The expenditure is the extrapolated estimates for 1975-2020 based on the DOL TAA annual reports for 2010-2019.

"substantially creditable service" (Part 315.201 and 315.202, title 5, Code of Federal Regulations). Untenured bureaucrats are less likely to certify petitions and more likely to delay investigations during Republican presidencies, and vice versa during Democratic presidencies. I term this "the conditional tenure effect." This partisan responsiveness is amplified when the policy platforms of the two parties further diverge on labor issues. I term this "the party divergence effect." Combined with the fairly high attrition rate of career bureaucrats, the conditional tenure effect and the party divergence effect generate significant differences in citizens' access to distributive benefits.

The partisan responsiveness that I identify is not driven by the selection of bureaucrats. Existing research looks at how predetermined characteristics of bureaucrats such as age (Hall, 2001; Voeten, 2008), gender (Naurin et al., 2019), nationality (Arias, 2019), and educational background (Nelson, 2014) affect their performance. To show that these features are not responsible for the partisan outcomes that I observe, I use bureaucrat-fixed effects to focus my analyses on within-bureaucratic variations. With these analyses, I validate that the presence of a conditional tenure mechanism drives partisan responsiveness independently from how bureaucrats are recruited.

The results from my analyses provide evidence that rank-and-file career bureaucrats, the type of bureaucrats that are conventionally known to be insulated from political pressure, nonetheless behave in a partisan manner under career uncertainty. The systematic response to the president's political party suggests the importance of examining employment institutions such as conditional tenure. While providing empirical support to the existing studies that bureaucrats' career concerns drive their partisan performance (Adolph, 2013; Rivera, 2020), I also illuminate that career incentives can generate partisan policy outcomes in advanced democracies like the United States.

<sup>2.</sup> The average attrition rate of the investigators in the Office of Trade Adjustment Assistance (OTAA) between 1995 and 2005 is 19.98%. This number is bigger than the attrition rate in the United States House (12.83%) during the sample period (104th - 109th Congress).

My findings not only uncover a mechanism in which career bureaucrats perform partisan, but also shed light on the importance of the design of career institutions in shaping the political sustainability of globalization. During just one term of a Republican president, the conditional tenure effect that I identify on average leads 8,096 workers to be denied the benefits that they applied for. Scholars studying the role of political parties in commercial policy have predominantly examined partisans in Congress and their impact on legislative bills (Lohmann and O'Halloran, 1994; Ladewig, 2006). I find that political parties can also affect commercial policy via tenure-seeking bureaucrats.

At the same time, my findings caution against treating TAA as a tool to garner bipartisan votes. Existing studies argue that TAA soothes anti-incumbent sentiment (Margalit, 2011; Ritchie and You, 2021). This article, however, indicates that such an effect is conditional on the time-variant alignment between labor and the Democratic party. When the Democratic party heavily relies on labor for electoral support, untenured career bureaucrats allocate TAA benefits in an even more partisan manner, recognizing that a president has higher stakes in representing labor through TAA. The design of career institutions as well as the strength of a core interest group that demands the policy together shape the degree to which governments adopt a partisan response to globalization.

The remainder of this paper is organized as follows. In the following section, I explain why and how the president can control rank-and-file bureaucrats. Next, I introduce the historical background of TAA and the details of how program benefits are distributed. I then lay out my empirical expectations and describe my empirical strategies. I continue by discussing the main results. Before concluding, I conduct additional analyses to rule out two alternative explanations, bureaucratic learning and fealty.

#### 2.1 Presidential Control of the Bureaucracy

In a democratic country with separation of powers, the president's control of the bureaucracy is imperfect by design. Under this design, political authorities across different branches of the government can constrain how the bureaucracy implements policies. Previous studies identify the formal authorities of the president that strengthen the control of the bureaucracy. The president's influence over budget (Fisher, 2015; Pasachoff, 2015), regulatory review (Livermore and Revesz, 2012; Shamoun and Yandle, 2016), and appointments (Lewis and Moe, 2009) are known to generate loyalty across agencies. Appointment power also strengthens the president's control by inducing the loyalty of top-ranking bureaucrats (Wood and Waterman, 1991; Lewis, 2010).

The existing literature on the presidential control of the bureaucracy, however, overlooks the question of whether the president can exert similar influence over rank-and-file bureaucrats. This is surprising given that rank-and-file bureaucrats are the ones who finalize policy implementation through day-to-day decisions (Lipsky, 2010; Brehm and Gates, 1999). One reason behind this absence of the literature is the assumption that the day-to-day bureaucracy is detached from political influence. According to the assumption, career bureaucrats are apolitical because they are hired on a merit basis and work for multiple presidential terms.

Previous studies neglect the fact that career bureaucrats exert effort to be promoted. The core insight of this paper is that career bureaucrats, once they are in their jobs, have incentives to exhibit responsiveness to the sitting president if doing so increases their career prospects. They would exhibit even stronger responsiveness when the president has higher stakes in representing an organized interest group through the policy. The design of appointment contracts, in combination with the president's stakes in the policy as a party leader, guides how rank-and-file bureaucrats make their day-to-day decisions.

If appointment contracts provide time-specific rewards to career bureaucrats, they would

exhibit varying degrees of responsiveness across time. This means throughout their entire career, there would be periods when career bureaucrats would be particularly more susceptible to the political pressure from the president. Previous empirical research identifies how career incentives drive Members of Congress (Thomas, 1985; Stratmann, 2000) and judges in the courts (Huber and Gordon, 2004; Voeten, 2008) to behave differently during their reelection and retirement seasons. To my knowledge, this is the first attempt to theorize and empirically evaluate how and when career concerns systematically change performance of rank-and-file bureaucrats across their career timelines.

The probationary period is one common device that provides such time-specific rewards to career bureaucrats. It is "a set period of time in which an agency is responsible for assessing a candidate for a finalized appointment in the federal civil service" (United States Merit Systems Protection Board, 2006, p.1). Once career bureaucrats pass the probationary period, they are rewarded with permanent appointments. In the United States, the probationary period originates from the Pendleton Act (the Civil Service Act of 1883), which established the mechanisms of merit-based employments (Privott, 1999).

Existing research on the probationary period discusses why Members of Congress passed the Pendleton Act (Johnson and Libecap, 2007) and how the government can benefit from adopting it as an employer (Loh, 1994; Sadanand et al., 1989; United States Merit Systems Protection Board, 2006). The probationary period reduces the uncertainties of federal agencies by allowing them to observe the knowledge, abilities, and skills of candidates. It also helps to cut administrative expenses by allowing the agencies to easily terminate the contracts of candidates who did not prove their fitness.

In comparison to the historical origin and the employer-side rationale of adopting the probationary period, however, the literature has far less to say about how the probationary period affects bureaucrats' responsiveness to the president. The probationary period deters incompetent workers from applying for employment (Loh, 1994), but how the probationary

period shapes the behavior of bureaucrats after their recruitment is still unclear. A few studies in civil service relatedly look at how employment institutions such as short or uncertain tenure (Hess, 2011; Miller, 2014) erode the quality of bureaucratic performance, but the literature has not inspected how the probationary period affects the degree to which career bureaucrats are attentive to the policy interests of the president.

In this paper, I show that the probationary period can lead untenured bureaucrats to perform in a way that favors the president's political party. This responsiveness to the political party of the president is grounded in the notion that bureaucrats use partisan cues as heuristics for the policy stakeholders' preferences (Potter, 2017; Porter and Rogowski, 2018). Rather than measuring bureaucratic performance through standardized performance quality metrics (Gilmour and Lewis, 2006) or surveys (Privott, 1999), I instead analyze the degree to which the bureaucrats match their observed performance to the policy platform of the president's political party. Compared to past approaches, this approach better quantifies the context-specific responsiveness to the president.

## 2.2 Targeted Trade Adjustment in the US

Bureaucrats are responsible for implementing numerous compensation programs. Among these, TAA is a federal program in the United States that compensates workers who are displaced by international trade. Individuals who are hurt by import competition file a petition for TAA benefits, and bureaucrats then decide their eligibility.<sup>3</sup> The program is unique in targeting individuals.<sup>4</sup> If a petition is certified by a bureaucrat, petitioners are qualified to participate in job training and are entitled to receive income support for up to two years. Over 100,000 workers on average receive TAA benefits each year, and each worker

<sup>3.</sup> In some cases, a labor union, firm, or state files a petition for the displaced workers. According to the dataset that I have, workers as individuals are the most frequent petitioners (36.36%), followed by firms (34.37%), states (16.67%), and labor unions (12.60%).

<sup>4.</sup> It is different from the trade compensation programs in other countries such as the European Social Fund (ESF) in the European Union that targets low-income regions (Claeys and Sapir, 2020).

can get benefits valuing up to \$50,000 (Hyman, 2018, p.3).

#### Historical Background

Since its origin in the 1950s, TAA has been a partisan program. First proposed by Democratic Senator John F. Kennedy, TAA was introduced in the Trade Adjustment Act of 1954 (S. 3650) (Hornbeck and Rover, 2012). During the 1960 presidential election, Democrats and Republicans differed in their approaches to maintain domestic economic stability against trade liberalization. The Democratic platform placed TAA at the forefront of its commercial policy. The Republican platform placed more emphasis on the escape clause and peril point provision.<sup>5</sup> Following the presidential election of John F. Kennedy in 1960, TAA finally became law in the Trade Expansion Act of 1962 (H.R.11970), with strong approval from the Democratic party.<sup>6</sup>

Representatives from the Democratic party have consistently voted for the expansion of TAA over time. Aggregating the three roll call votes on TAA between 1986 and 2004 clearly shows the party divide. Of the 147 senators who voted for the expansion of the TAA, 125 of them were Democrats. By contrast, 6 of the 116 senators who opposed the bills on TAA expansion were Democrats (See top of Figure 2.1). Survey evidence also demonstrates that voters who identify themselves as Democrats are more likely to support TAA than self-identified Republicans (Burgoon and Hiscox, 2008). Some scholars, such as Rickard (2015), suggest pro-trade legislators use TAA as a strategic tool to broaden their pro-trade coalition, but even in Rickard (2015)'s model, affiliation with the Democratic party is the most consistent and dominant predictor of support on TAA expansion. The bottom of Figure 2.1

<sup>5.</sup> The peril point provision falls under the Trade Agreements Extension Act of 1951. Tariff Commission for each listed commodity investigates the maximum decrease in a tariff that does not cause serious injury to the domestic industry. If the President concludes a trade agreement with a bigger tariff reduction than the peril point that the Commission specified in its report, the President must state the reason for not following the Commission's recommendation. (United States Tariff Commission, 1955)

<sup>6.</sup> Among the 256 Yea votes, 178 votes came from Democratic party members.

presents how the predicted support of a TAA expansion bill changes by the percentage of the constituents affiliated with net export industries. Although Republican senators representing export-oriented constituents are more likely to vote for TAA expansion, Democratic party affiliation is nevertheless the predominant predictor of the senators' support for TAA expansion.

TAA roll call votes by party, 1981-2004 250 Number of votes 35 200 150 185 100 211 50 45 0 No Yes **Expansion of TAA** Democrat Republican Predicted TAA support (%) Predicted TAA support 100% 75% 50% 25% 0% Population in export industries (%), by state Republican Democrat

Figure 2.1: Explanatory power of political parties in TAA roll call votes

Notes: The two graphs are generated using the replication data from Rickard (2015). See Appendix A for the details of each TAA bill and the voting records of senators. The roll-call votes of the two pro-trade senators with no party affiliation are excluded in the analysis. The predicted voting outcome is based on robust standard errors.

#### TAA Procedure

Amidst this partisan contestation, a specific bureaucracy has been tasked with distributing TAA benefits as an independent and technical agency. Right after passage of the Trade Act of 1974, distribution of TAA benefits has been transferred from the Tariff Commission to the Office of Trade Adjustment (OTAA) under the Department of Labor (DOL) (Goldstein, 1988). Since then, all TAA petitions have been administered by the OTAA headquartered in Washington D.C. Notably, the president can remove the head of OTAA or the Secretary of Labor at any time. This institutionally ensures the president to have greater control over the TAA than Congress does (Milner and Tingley, 2015).

To summarize the petition disposition process, petitioners<sup>7</sup> first file a petition specifying that international trade is "an important cause of their threatened or actual job loss or wage reduction." Once the petition is filed, two types of career bureaucrats in OTAA together determine a workers' eligibility for TAA benefits. Initially, investigators contact the workers' firm, as well as any relevant customers, petitioners, or labor unions to gather the necessary data to determine eligibility. Allocation of petitions to investigators is primarily based on volume of petitions and importantly, is largely random (Hyman, 2018).<sup>8</sup> After the review period, the certifying officers decide whether to certify or deny the petition. The decisions are based on three kinds of data collected by the investigators: the data on the company, national statistics on imports by industry, and data from customer surveys. If certified, workers can then receive job training and unemployment allowances.<sup>9</sup>

Although the determination procedure is straightforward, the difficulties associated with attributing unemployment to international trade offers the OTAA bureaucrats substantial

<sup>7.</sup> A group of three or more workers, an employer, a labor union, or a state workforce official is eligible to file a TAA petition.

<sup>8.</sup> Although petitions are allocated primarily based on investigator workload, prior experience with a company or industry as well as staff leave may affect the petition allocation (Hyman, 2018, p.17).

<sup>9.</sup> Workers who are not satisfied with the determination can either request administrative reconsideration from OTAA or judicial review from the US Court of International Trade.

discretion in their application of the law. The 60-day time constraint for investigations further complicates the certification process. The US General Accounting Office (1992) (currently known as the "Government Accountability Office") illustrates this point:

Our review identified problems in all three areas of Labor's investigations-company data collection, analyses of trade statistics, and customer surveys. In many cases, the investigations were deficient in more than one area. Many of these deficiencies occur because the pressure to complete the investigation presses investigators to, as one Labor official stated, "... take whatever they can get to finish in 60 days." - U.S. General Accounting Office, GAO-HRD-93-36 (Oct. 1992), page 3-4.

Along with the time constraint, it is technically difficult to distinguish job losses due to import competition from job losses due to a factory's decision to automate production. In many instances both could simultaneously be driving unemployment, implying that the determinations can involve substantial grey areas.

#### 2.3 Empirical Expectations

I have shown that career bureaucrats in the OTAA have substantial discretion in their decisions. The investigators who collect the relevant data are also bound by an appointment contract that guarantees tenure conditional on three years of "substantially creditable service (Part 315.201 and 315.202, title 5, Code of Federal Regulations)." These facts together open up possibilities of inter-temporal responsiveness to the president. Below I lay out the following three empirical expectations. <sup>10</sup>

First, untenured bureaucrats should respond to the president's party affiliation. The OTAA investigators studied in this paper are required to show three years of "substantially creditable service" to obtain job security from tenure. Untenured investigators are aware of the fact that their first three years of performance are subject to subsequent tenure

<sup>10.</sup> See Appendix A for the formal representation of the theory.

evaluation, and they are incentivized to behave more responsively to the president's party affiliation. One way to exhibit such responsiveness would be to certify TAA petitions in a way that aligns with the platform of the president's political party. Because TAA has been a partisan program endorsed by the Democratic party, I conjecture that during Republican presidencies, untenured investigators, among others, are less likely to certify TAA petitions. (H1: Partisan Certification).

Second, untenured bureaucrats should exhibit partisan responsiveness through the pace of their investigations. Existing studies find that bureaucrats control the speed of their decisions for their benefits (Potter, 2017; Carpenter, 2003; Rivera, 2020). If untenured bureaucrats recognize pacing as a tool over which they have discretion, then I expect them to respond to the policy platform of the president's party by expediting or slowing their investigations. In the context of TAA, I expect that during Republican presidencies, untenured investigators, among others, are more likely to delay the investigations (H2: Partisan Delay).

Third, untenured investigators should exhibit stronger responsiveness when a party policy platform diverges from that of its rival on labor issues. In the two-party system in the United States, this means that the strength of labor-Democratic party alignment will shape the degree to which untenured bureaucrats exhibit partisan responsiveness (H3: Party Divergence). Historically, even across presidencies of the same political party, there is a substantial variation on how much investigators respond to the party affiliation of the sitting president. For example, even amongst Republican presidencies, the petitions under the Reagan Administration were administered with more rigorous certifications and delays than were the petitions under the George W. Bush Administration (Figure A4 in Appendix A). This is puzzling considering that both presidencies are characterized by a high level of executive control (Moynihan and Roberts, 2010).

I theorize that this difference is due to the time-variant divergence of political party platforms on labor issues. The president as a party leader is pressured to represent the electoral base. In a year when party policy platforms are more clearly divided along the lines of labor and capital, the Democratic (Republican) president has a stronger incentive to represent labor (capital)-specific interests. The president would then shape the bureaucratic environment accordingly,<sup>11</sup> and untenured investigators would then adapt their behaviors and display stronger partisan responsiveness. Table 2.1 summarizes the three empirical expectations.

Alternatively, direct contacts from legislators may pressure the bureaucrats to approve TAA petitions (Ritchie and You, 2018). The contacts from the legislators, however, should not weaken the conditional tenure mechanism. In order for the direct contacts to explain the partisan certification and delay, the legislators should contact the OTAA predominantly during the Democratic presidencies.<sup>12</sup> Moreover, the petitions subject to the direct contacts need to be disproportionately assigned to untenured bureaucrats. Yet the petitions are allocated quasi-random (Hyman, 2018). The legislators also occasionally contact the agency (7.3%), reinforcing that the career concern should be the main driver of the partisan performance.<sup>13</sup>

Table 2.1: Empirical expectations

Hypothesis	Outcome	Untenured		Tenured
Hypothesis		Republican	Democrat	Tenured
H1 (Partisan Certification)	Certification	Stringent	Lenient	No
H2 (Partisan Delay)	Length of Investigation	Long	Short	Effect
H3 (Party Divergence)	rty's represent	ation of labor.		

<sup>11.</sup> This aligns with Krasner (1972, p.169)'s point of the president having the capacity to forge a bureaucratic environment through the selection of chiefs and determination of action channels.

<sup>12.</sup> Putting differently, (Ritchie and You, 2018) explains why a particular congressional district gains more policy benefits over the others, while I answer why and when labor gets more government compensation.

<sup>13.</sup> According to Ritchie and You (2018), 1,262 contacts from the legislators mention a specific TAA petition between the year 2005 and 2012. In total, 17,309 petitions were submitted to the OTAA during this period. This leads to the conclusion that at maximum 7.3% of the total petitions were subject to the direct contacts, and this number would go down when incorporating the multiple direct contacts repeatedly mentioning a single petition.

#### 2.4 Data and Empirical Strategy

I measure the discretion of OTAA bureaucrats in two ways: their rate of TAA petition certification and bureaucratic delays in TAA determinations. To do so, I submitted Freedom of Information Act (FOIA) requests to the DOL in 2017 to acquire the data on each TAA petition and its determination. The initial dataset that I received from the DOL contained information on 81,453 petitions administered from 1975 to 2017. This dataset later became publicly available with more updates to petition records covering petitions as recent as January 31, 2020, totalling 84, 165 petitions. Each petition is recorded based on the company name (the petitioners' employer) and its address. In addition to employer information, the dataset contains detailed information on the result of TAA petitions as well as the date when TAA investigations were initiated and concluded. I use the former as the measurement of TAA petition certification, and the latter as the measurement of bureaucratic delays.

To trace each bureaucrat's length of service, I use the petition-specific last name of the investigator.<sup>14</sup> As I analyze the universe of petitions, the first time an investigator's name appears in the TAA petition dataset approximates the date the investigator starts her career. Based on the estimated start-of-career date, I calculate the timed served in the agency for each investigator for each petition. If the time served is longer than three years (or 1,095 days), I consider that petition as being administered by a tenured investigator.

To test *H3: Party Divergence*, I construct a measure of political party interest in representing labor and capital-specific interests over time. I call this measure the factor-political party alignment index or *FP alignment*. If the constituent's party support varies by the ownership of labor and capital, then the incumbent president as a party leader would be more incentivized to represent that constituent interest. <sup>15</sup> I utilize the yearly variation of

<sup>14.</sup> I cleaned out last names of TAA investigators referring to the correction of Hyman (2018). For example, "BROWNE" and "BORWN" in the dataset were corrected as "BROWN."

<sup>15.</sup> Note that this is only one verifiable channel in which the policy platforms of the political parties diverge. Other than the campaign contributions from the constituency, other factors may explain why the

labor's Political Action Committee (PAC) contributions to the two parties, calculated as follows:

$$FP \ alignment(\%) = \frac{\text{Labor PACs to Dem(\$)} - \text{Labor PACs to Rep(\$)}}{\text{Total PAC contributions(\$)}} * 100(\%)$$
 (2.1)

FP alignment is therefore the degree to which labor disproportionately supports the Democratic party through their PAC contributions. I sum all labor-related PACs to calculate the index. If FP alignment is high, the Democratic party is more pressured to represent labor-specific interests in year t, including compensating more workers through TAA. The PAC contribution data is obtained from Reynolds and Gode (2019).  $^{16}$ 

My empirical strategy holds under the following two assumptions. First, bureaucratic decisions of TAA eligibility are a joint effort of investigators and certifying officers. As I infer the investigators' partisan responsiveness from observed bureaucratic outcomes, I assume that certifying officers rarely reverse the recommendations of investigators. For my proposed mechanisms to hold, certifying officers should not frequently overturn recommendations from investigators, and should not intentionally hurry or delay certification decisions against investigators. My dataset has a record of the investigator determinations separate from the certifying officer determinations for petitions filed since November 2004 (29, 191 petitions). I confirm that the investigator's determination is rarely overturned by the certifying officer. Among the 29, 191 petitions, only 23 cases (0.0008%) are overturned by certifying officers. Second, investigators should perceive that the transition to permanent appointment after the first three years of service is not automatic. If conditional tenure is perfunctory, and everyone is almost always granted tenure, my mechanism does not hold. I cannot exactly

two parties diverge over issue areas.

<sup>16.</sup> These data are for general election candidates only. When calculating *FP alignment* in non-general election years, I extrapolate the PAC contribution data of the previous year. See Figure A5 in Appendix A for the over-time trend of *FP alignment*, and Figure A6 in Appendix A for the robustness check of *FP alignment* using an alternative index.

discern which investigator received tenure, but the descriptive analysis of investigators by their length of service (Figure 2.2) shows that there is a sharp decline in counts of investigators at the threshold of three years. This sharp decline provides one evidence of sorting at the stage of tenure evaluations.

Number of investigators by length of service (total 265 investigators, April 1975-Jan 2020)

Supply 40

O 3 10 20 30 40

Length of Service (year)

Figure 2.2: Counts of investigators by length of service

## 2.5 Empirical Findings

In this section, I validate the three empirical expectations in Table 2.1. I estimate the degree to which the OTAA bureaucrats respond to the president's political party interests. The analyses show that under the Republican presidencies, the bureaucrats are less likely to certify TAA petitions, and more likely to slow down investigations. This partisan behavior, however, is conditional on untenured bureaucrats. I also demonstrate that this partisan performance amplifies during the period of strong alignment between labor and the Democratic party. Together, the patterns suggest that career concerns induce partisan performance of rank-and-file bureaucrats, and they behave even more partisan when the interest group that

demands the policy benefits is electorally crucial.

#### Partisan Certification

I use a logit regression to estimate the likelihood of TAA petition certification. It can be formally represented as:

$$Logit(Certify = 1)_{icb} = \beta_1 * (Republican \times Untenured)_{icb} +$$

$$\beta_2 * (Republican)_{icb} + \beta_3 * (Untenured)_{icb} + \Gamma * X'_{icb} + \alpha_{ib} + \alpha_{ic} + \epsilon_{icb}$$
(2.2)

where i denotes a TAA petition, c is a company subject to the petition, and b is an investigator in charge of the petition.<sup>17</sup> The dependent variable (Certify = 1) is the result of a TAA petition determination, either certification or denial. Among 84,165 petitions, 46,444 petitions (55.2%) are certified. I use a randomly halved dataset in the main analysis to conduct a holdout evaluation.<sup>18</sup> The training sample contains 42,084 TAA petitions, of which 23,317 of them (55.4%) were certified.

The independent variable is the interaction term between the president's political party and whether a TAA investigator has tenure (Republican × Untenured). The president's party affiliation (Republican) is an indicator variable distinguishing Republican (=1) and Democratic (=0) presidents. My dataset includes five Republican presidents (Gerald Ford, Ronald Reagan, George H.W. Bush, George. W. Bush, Donald Trump) and three Democratic presidents (Jimmy Carter, Bill Clinton, Barack Obama). Amongst all petitions, 55.8% (23,479 petitions) of them were filed during Republican presidencies, and 44.2% (18,601 petitions) were filed during Democratic presidencies. The no-tenure variable (Untenured) is also an indicator variable, with untenured being 1 and tenured being 0. The existence of

<sup>17.</sup> The partisan certification that I identify is robust to the OLS regression (Table A10 in Appendix A).

<sup>18.</sup> Table A2 of Appendix A reports the summary statistics of the holdout sample. Appendix A reports the result of the holdout evaluation in detail.

tenure is calculated based on the bureaucratic length of service longer or shorter than three years (or 1,095 days) at the time of initiating a petition-specific TAA investigation. This is computed by subtracting the days passed from the investigator b administering her first TAA petition to the same investigator b initiating TAA investigation of petition i.

Two types of fixed effects are used in this model. First, I use bureaucrat-fixed effects investigators that have administered more than ten TAA petitions ( $\alpha_{ic}$ ). This takes into account an investigator's idiosyncratic characteristics that may alter the TAA petition certification outcomes. With investigator-fixed effects, I can also control for an investigator's time-invariant personal ideology or innate ability that might generate her partisan responsiveness. As I compare the within-bureaucrat performance, this approach rules out the possibility of bureaucrat selection driving partisan responsiveness. TAA petitions assigned to investigators who administered less than ten TAA petitions in total are not taken into account by fixed effects with the assumption that the investigators are temporary workers.<sup>19</sup> In total 265 investigators have experience administering more than ten TAA petitions.

Second, I use the company-fixed effects for companies that have been subject to TAA petitions more than 30 times ( $\alpha_{ib}$ ). In addition to their frequent usage of TAA, these firms may also be equipped with better resources to help their workers, such as their capacity to lobby or unique political connections. Among the 133 firms that meet this condition, many of them are manufacturing firms in the automobile (General Motors, Chrysler, Ford), information technology (International Business Machines, Hewlett Packard), and oil and gas (Exxon Mobil, Chevron) industries. With these two types of fixed effects, I leverage the longitudinal performance of each investigator while taking into account the company-level characteristics that might affect certification outcomes.

The other covariates (X') included in the certification model are the DOL's annual bud-

<sup>19.</sup> With the training sample data I calculated an investigator's average investigating time per petition, which is 18 days. This number is calculated by the total number of cases an investigator administered in her entire career divided by her total length of service. I set ten TAA petitions as the threshold of selecting investigators with the assumption that less than six months  $(18 \times 10 = 180 \text{ days})$  of service is temporary.

get authority, month-year unemployment rate, estimated number of affected workers per petition, month-year OTAA workload, an indicator variable of whether a petition is from service sector, and a measure of petitioner type (workers, company, state, labor union).<sup>20</sup> The DOL budget is included to control bureaucratic discretion in certifying TAA petitions due to budget flexibility. Rather than using data on the actual money spent, I rely on a measure of the agency's budget authority, which is announced before the fiscal year, to avoid a posterior explanation.<sup>21</sup> I also include the month-year national unemployment rate from the Bureau of Labor Statistics to address possible correlations with both the president's party platform and the certification outcomes. The national unemployment rate is used over the local unemployment rate because all the TAA decisions are issued from the OTAA headquarter in Washington, D.C.. I also account for the estimated number of affected workers per petition to control for the possible influence of petition size on the determination. I control the month-year OTAA workload because more cases in a bureaucratic agency may pressure bureaucrats to work more efficiently.<sup>22</sup> I include service sector petitions as their relative difficulty of proving displacement by trade for such petitions might be associated with fewer petitions being certified during the Republican presidencies. I control for petitioner type as previous studies have shown that TAA petitions filed by labor unions are more likely to be approved (Magee, 2001).

The estimates show that, during Republican presidencies, untenured investigators are less likely to certify TAA petitions. Figure 2.3A graphically illustrates the effect of  $Republican \times Untenured$  on predicted TAA certification rate.<sup>23</sup> The x-axis is whether a petition i is

<sup>20.</sup> See Table A1 in Appendix A for the summary statistics of the control variables.

<sup>21.</sup> The DOL budget authority in 2020 is based on the announcement issued before COVID-19. Due to the extensive unemployment that COVID-19 engendered, the DOL's actual budget outlay is expected to be much larger.

<sup>22.</sup> This accounts for the OTAA speeding up its petition investigation process in response to citizens' demands for timely public service that is separate from partisan responsiveness. The workload is calculated by counting the number of petitions that the OTAA received in a month.

<sup>23.</sup> See Table A6 of Appendix A for the regression results.

administered by an untenured investigator, and the y-axis is the average predicted certification rate. The predicted certification rate of an untenured investigator under a Republican presidency is 8% lower than that of an untenured investigator under a Democratic presidency. The non-overlapping confidence intervals in the *Untenured* column of Figure 2.3A suggest that the untenured investigators reflect the president's political party preferences when determining the eligibility of TAA benefits.<sup>24</sup> The size of the gap narrow to 2%, with overlapping confidence intervals, when a petition is managed by a tenured investigator.<sup>25</sup>

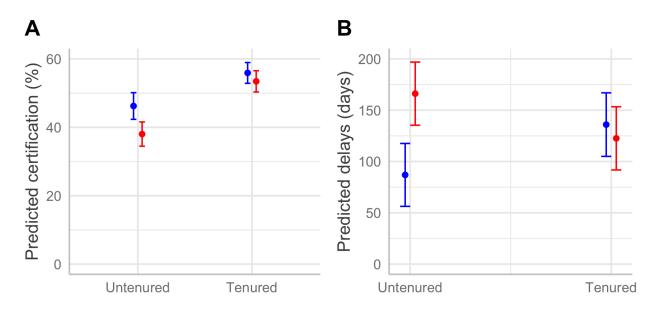


Figure 2.3: Partisan certification and delay

Notes: The color represents the president's political party, red being the Republican party and blue being the Democratic party. The error bars are based on the 95% confidence intervals.

The statistically significant 8% gap results in substantial differences in the certification

<sup>24.</sup> This partisan certification is robust to the clustered standard errors by industries (Appendix A) and the six-month fixed effects (Appendix A).

<sup>25.</sup> Figure 2.3A shows that the tenured investigators, regardless of the president's party affiliation, are on average more inclined to certify TAA petitions than the untenured investigators. Although further empirical validation is needed, this might be attributed to the tenured investigators becoming more sympathetic to the petitioners as they stay longer in the agency. Tenured bureaucrats, in comparison to the untenured bureaucrats, directly relate their status and esteem to the organizational identity (Carpenter, 2014). They may also simply become more confident in making the determination that damage was caused by trade.

outcomes considering that 41% of the petitions are administered by untenured investigators (15, 637 petitions out of 38, 192 petitions). With a rough estimation, if Republican presidents had been consistently in power over the last 45 years, we roughly would have observed 2, 760 (84,  $165 \times 0.41 \times 0.08$ ) more TAA petitions rejected by untenured investigators in total, and 245 (2,  $760/45 \times 4$ ) more petitions rejected each presidential term. <sup>26</sup> Since each petition affects a median of 33 workers, 91, 080 (2,  $760 \times 33$ ) workers in aggregate and 8, 085 (245 × 33) workers in each Republican presidential term would have been denied the benefits that they applied for. This conditional tenure's impact on the aggregate outcomes would be even larger during periods of an economic downturn when more petitions were submitted.

#### Partisan Delay

Turning to the speed of investigation, I estimate the effect of conditional tenure on bureaucratic delay with a linear regression model. The dependent variable (Delay) is calculated as the days elapsed from the beginning of the TAA investigation to the final determination. The range of Delay is significant, ranging from 1 day to 1,490 days.<sup>27</sup> Just as the certification model, the independent variable is the interaction term between the president's party affiliation and an investigator's tenure ( $Republican \times Untenured$ ). I keep the fixed effects ( $\alpha_{ib}$ ,  $\alpha_{ic}$ ) and the other covariates (X') the same as the certification model.

The analysis confirms the existence of partisan delay among untenured bureaucrats. Figure 2.3B estimates the predicted bureaucratic delay by the political party in power, and whether an investigator has tenure.<sup>28</sup> An untenured investigator under a Republican presidency, compared to an untenured investigator under a Democratic presidency, would extend

<sup>26.</sup> The calculation is based on the assumptions that both the percentage of petitions administered by untenured investigators, and the citizen demand for TAA are constant across years.

<sup>27.</sup> Figure A2 of Appendix A reports the distribution of bureaucratic delays, and Figure A3 of Appendix A visualizes the distribution by the president's political party and the investigators' length of service.

<sup>28.</sup> Table A7 of Appendix A presents the regression table.

the investigation by 79.2 days.<sup>29</sup> Similar to the partisan responsiveness in certification, the non-overlapping confidence intervals in the 'Untenured' column of Figure 2.3B indicate that the untenured investigators alter the pace of investigations depending on the party affiliation of the president. The difference narrows to 13.4 days with overlapping confidence intervals when a petition is administered by tenured investigators.

The 79.2 days of additional delays from untenured investigators  $(\beta_1 - \beta_2)$  markedly alters citizen expectations for how fast they can receive TAA benefits. As 41% of the petitions are administered by untenured investigators (15,637 petitions out of 38,192 petitions), if the last 45 years had been under a Republican president, 34,507 (84,165 × 0.41) petitions in total, and 3,067 (34,507/45 × 4) petitions each presidential term, would have experienced an administrative delays equivalent to 79.2 days.<sup>30</sup> Roughly speaking, it takes 84.97 days on average to process one petition, so the magnitude of the delay is equivalent to the time for processing 32,164 (34,507 × 79.2/84.97) additional petitions in aggregate, and 2,859 (3,067 × 79.2/84.97) additional petitions each presidential term.

Both partisan certification and delay that I identify are conservative in the sense that the analyses include untenured bureaucrats who eventually left the agency before tenure. My preferred interpretation assumes a model in which bureaucrats fully anticipate the costs of a negative review at tenure and adjust their behavior accordingly. However, some bureaucrats may fail to anticipate these career incentives. In fact, I find evidence that the "disloyal" bureaucrats were less likely to be retained. I compare the survival rate of the investigators based on their average certification rate and delays in their first three years (Appendix A). From the comparison, I find that those who behaved "disloyally" were more likely to leave the agency before three years. The exact cost to the bureaucratic churn is difficult to measure,

<sup>29.</sup> This partisan delay is robust to the clustered standard errors by industries (Appendix A) and the six-month fixed effects (Appendix A).

<sup>30.</sup> The calculation is based on the assumptions that the percentage of petitions administered by untenured investigators, and the citizen demands for TAA, are constant across years.

but the analysis indicates that the conditional tenure effect would be even bigger were the bureaucrats can fully anticipate the consequence of their performance.

## Party Divergence

After estimating the effect of career concerns on the partisan performance, I test whether untenured bureaucrats behave even more partisan when political parties are further split along the lines of labor and capital. For this analysis, I bring in the factor-political party alignment index, or FP alignment, a time-variant measure that captures the degree to which labor disproportionately supports the Democratic party through PAC contributions. According to H3: Party Divergence, higher FP alignment should induce the untenured investigators to exhibit stronger partisan responsiveness. I interact FP alignment with the independent variable in the certification and delay models ( $Republican \times Untenured$ ). For intuitive interpretation, I split FP alignment into tertiles and name each tertile as Low, Medium, and High. The same fixed effects and covariates are used.

If H3: Party Divergence holds, then the coefficient of the triple interaction term should be negative and statistically significant when the dependent variable is Certification (1=Yes). The coefficient should be positive and statistically significant when the dependent variable is Delay. Graphically, we would observe a widening divergence of the investigators' likelihood of certification and the extent of delay along with the increase of FP alignment.

I find evidence in support of H3: Party Divergence. Figure 2.4A and Figure 2.4B display how the degree of partisan responsiveness changes by the strength of alignment, investigator tenure, and party affiliation of the president. Compared to the tenured investigators, partisan responsiveness of the untenured investigators amplifies as alignment increases. When facing 'High' alignment, differences in the predicted certification rate and bureaucratic delay

<sup>31.</sup> The party divergence effect on certification that I identify is robust to the OLS regression (Table A11 in Appendix A).

<sup>32.</sup> The figures are based on the regression results in Table A8 and A9 of Appendix A.

between untenured investigators during Republican and Democratic presidencies amounts to 17.9% (Figure 2.4A), or 186.9 days (Figure 2.4B) respectively. This magnitude of partisan responsiveness is 2.23 times ( $8 \times 2.23 \approx 17.9\%$ ) and 2.36 times ( $79.2 \times 2.36 \approx 186.9$  days) larger than the magnitude of partisan responsiveness estimated from the partisan certification and delay models in Figure 2.3.

The relationship between *FP alignment* and partisan responsiveness explains why we observe stark differences in how untenured investigators behave across Republican presidencies. Untenured investigators have more incentives to act in a partisan manner during periods of the high alignment because doing so better reflects the president's preference as political party leader. The alignment between labor and the Democratic party polarized the party's stance on TAA in the 1980s, and pressured career bureaucrats to represent polarized stance at the stage of policy implementation.

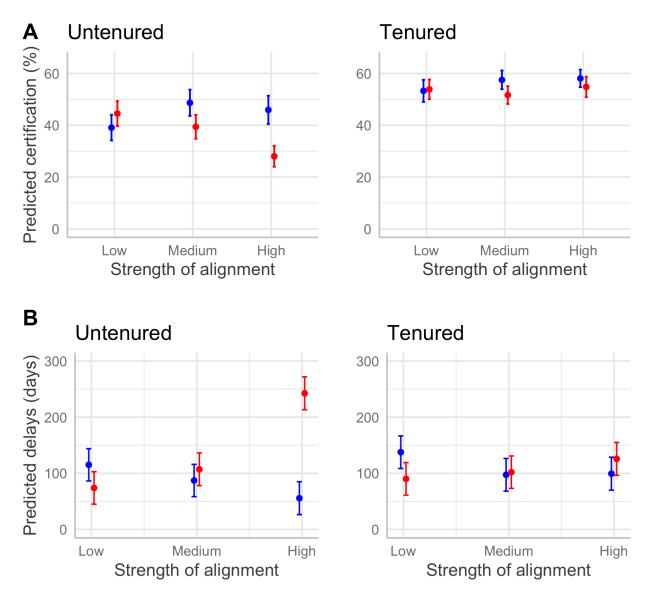
## 2.6 Alternative Explanations

This section examines two alternative explanations that can affect bureaucratic performance, bureaucratic learning and fealty. While they are plausible explanations, I find that neither is the main mechanism that drives the partisan bureaucratic performance.

# Bureaucratic Learning

While tenure takes effect at a certain point in a bureaucrats' career, bureaucrats also learn task-specific skills which could affect the partisan performance. These task-specific skills are much less valued in alternative employment, and it takes time and effort for bureaucrats to master the skills (Gailmard and Patty, 2007). Early-career investigators who do not have sufficient knowledge about the TAA petition process may initially rely on external cues such as the president's party affiliation. As they spend more time in the agency, however, they would accumulate skills that would free them from relying on the partisan cues. As a

Figure 2.4: Predicted certification and delay by alignment



Notes: The color represents the president's political party, red being the Republican party and blue being the Democratic party. The error bars are based on the 95% confidence intervals.

corollary, the investigators would exhibit less partisan responsiveness as they stay longer in the agency.

To empirically disentangle learning from the conditional tenure mechanism, I partition the binary tenure variable into the length of service in years. If the lack of learning is driving partisan responsiveness, then we should see a continuous decline in partisan responsiveness with an increase in the investigators' length of service. On the other hand, if three years of service is required for career tenure and investigators exert effort to acquire the tenure, we should observe a rapid, discontinuous decline in partisan responsiveness after the three-year threshold.

This discontinuity confirms that a lack of learning does not induce partisan responsiveness. Figure 2.5 shows that there is a discontinuous decrease in partisan responsiveness after the three-year threshold. As for the predicted certification rate, investigators stop exhibiting partisan responsiveness after three years of service (Figure 2.5A). Likewise, investigators' predicted bureaucratic delays do not differ by the president's party affiliation after their fourth year of service (Figure 2.5B).

### *Fealty*

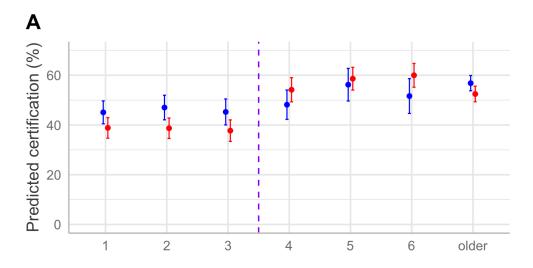
When an employer hires bureaucrats based on an informal connection, bureaucrats would align their performance with the employer who hired them (Jiang, 2018). In that case, bureaucrats would be selected to exhibit fealty to their first employer and thus behave in a partisan manner. Under the fealty mechanism, bureaucrats would always reflect their first employer's party preferences throughout their entire career. On the other hand, if early-career bureaucrats are responsive to conditional tenure, they would adapt their behavior in accordance with who sits in office. The following model specification is to discern whether early-career bureaucrats perform in response to the first employer who recruited them or to the second employer who will decide their tenure.

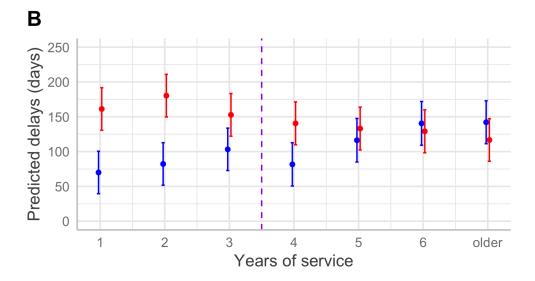
$$Y_{i} = \beta_{1} * (\text{Hired by Dem} \times \text{Rep})_{i} + \beta_{2} * (\text{Hired by Dem})_{i} + \beta_{3} * (\text{Rep})_{i} + \beta_{4} * (\text{Months of Service})_{i} + \beta_{5} * (\text{Hired by Dem} \times \text{Months of Service})_{i} + \epsilon_{i}$$

$$(2.3)$$

The model specified here is restricted to a TAA petition i administered by investigators

Figure 2.5: Predicted certification and delays by years of service





Notes: The color represents the president's political party, red being the Republican party and blue being the Democratic party. The error bars are based on the 95% confidence intervals.

in their first six months of service.<sup>33</sup>

This difference-in-differences (DID) design estimates how the investigators who are hired at the end of a Democratic presidency would behave under a newly inaugurated Republican presidency. The main variable of interest is *Hired by Dem:Rep*, the interaction term between

<sup>33.</sup> Narrowing the window of the length of service to six months is to compare bureaucratic performance across early-career bureaucrats. The model specification excludes the investigator-fixed effects for the cross-comparison, and widening the window risks the time-variant unobservables driving the result of the analysis.

the two indicator variables of whether a bureaucrat is hired by a Democratic president (*Hired by Dem*) and whether a bureaucrat is working for a Republican president at the time of the investigation (*Rep*). The second interaction term (*Hired by Dem\* Months of Service*) is a covariate controlling possible heterogeneous effect of months of service (*Months of Service*) over the political party that hired a bureaucrat (*Hired by Dem*).

If bureaucrats exhibit fealty to their first employer, a new president from a different political party should not affect their performance. In other words, if the interaction term coefficient ( $\beta_1$ ) is not statistically significant, the result supports the fealty mechanism. If the interaction term coefficient ( $\beta_1$ ) rejects the null (H0:  $HiredbyDem \times Rep = 0$ ), however, this provides evidence that fealty to the first employer does not explain the performance of early-career investigators.

The result does not support the fealty mechanism. Table 2.2 presents the result of the DID analysis. The dependent variable of Model (1) is petition certification, and the dependent variable of Model (2) is the length of the delay. The statistically significant coefficient of -0.4 in Column (1) and the statistically significant coefficient of 161.90 in Column (2) indicate that early-career bureaucrats who are hired at the very end of a Democratic presidency behave more "Republican" under the new Republican administration. Early-career bureaucrats adapt their behaviors to changes in the external agency environment.

#### 2.7 Discussion

This article provides evidence that untenured bureaucrats are particularly responsive to the president in order to increase their permanent appointment prospects. I demonstrate that conditional tenure as an institution, combined with the career incentives of rank-and-file bureaucrats, can jeopardize the political sustainability of globalization. Delegation to supposedly neutral career bureaucrats does not ensure consistent compensation to those most in need. Without re-designing institutions that evaluate the performance of career

Table 2.2: Conditional tenure vs. fealty

	Certification	Delay
	OLS	OLS
	(1)	(2)
Hired by Dem	0.16**	12.39
	(0.07)	(10.25)
Rep	0.15**	-7.67
	(0.06)	(9.26)
Months of Service	0.01	-4.38***
	(0.01)	(0.91)
Hired by Dem×Rep	-0.40***	161.90***
	(0.07)	(10.32)
Hired by $Dem \times Months$ of Service	-0.01	4.06***
	(0.01)	(1.28)
N	4,190	4,183
$\mathbb{R}^2$	0.02	0.30

<sup>\*</sup>p < .1; \*\*p < .05; \*\*\*p < .01

Notes: The regression in Column (2) excludes seven observations with incomplete information on bureaucratic delay.

bureaucrats, it is difficult for governments to credibly redistribute the uneven benefits of globalization. The design of the bureaucracy, especially institutional design that shapes bureaucrats' career incentives, needs to be understood as a critical component underpinning embedded liberalism.

More broadly, my finding that bureaucrats are responsive to the president under career uncertainty has an important implication for theories of presidential control of the bureaucracy. When studying to what extent bureaucrats are responsive to the president, existing studies have focused on the appointments of high-ranking officials. The underlying assumption in existing research is that top-ranking bureaucrats who are directly appointed by the president are more politically sensitive, while rank-and-file bureaucrats hired on the basis of merit are insulated from political pressure. This article illuminates one mechanism through which employment institutions can incentivize rank-and-file bureaucrats to respond to political pressure. Previous studies analyze bureaucratic performance either across agencies

(Clinton et al., 2012; Milner and Tingley, 2015; Potter, 2017) or within a single agency across time (Carpenter, 2003, 2014; Aquilante, 2018). In contrast, I trace the longitudinal performance of career bureaucrats within a single agency. In doing so, I delineate when bureaucrats are more responsive to the president across their career timelines.

Future studies need to investigate other features of employment institutions that might affect the incentives of career bureaucrats, and the degree to which their behavior is partisan. Career bureaucrats comprise over 70% of the federal bureaucracy employees in the United States (United States Office of Personnel Management, 2018, p.8), and they serve in agencies longer than elected officials and political appointees. Career bureaucrats may benefit from implementing their preferred policy (Gailmard and Patty, 2007) and accumulating reputations inside and outside of their agency (Carpenter, 2014), but this is only true if they expect to work for their agency for a long time. If bureaucrats want long careers at the same agencies, yet their career longevity is uncertain, then they might restrain their immediate policy-oriented and reputation-related aspirations for the sake of job security. Recognizing this inter-temporal responsiveness of career bureaucrats starts from identifying design features of their employment institutions.

#### CHAPTER 3

# CERTIFYING THREAT: THE ELECTORAL LOGIC OF ECONOMIC RELIEF

(with Robert Gulotty)

Globalization has spurred governments to adopt programs to compensate workers and businesses affected by international competition. In addition to whatever benefits these programs bring to workers, they serve a political goal. According to the embedded liberalism thesis (Ruggie, 1982; Goldstein and Gulotty, 2019), these compensation programs are necessary to maintain public support for globalization, joining free markets at the border for intervention at home.

Previous studies find the embedded liberalism thesis to have had limited effect on social spending. There is a mismatch between the strong public responses to compensation and weak policy responses to globalization. Existing studies show that individuals in countries with high spending on compensation programs are more likely to support free trade (Hays et al., 2005), and penalize an incumbent politician less for globalization related displacement (Margalit, 2011). The literature on the effects of globalization, however, finds that greater economic openness does not lead governments to spend more on compensation. In fact, Garrett and Mitchell (2001) and Busemeyer (2009) provide evidence that deeper globalization is associated with governments spending less on compensation.

We explain the disconnect between public responses toward compensation and political decision making with a model of electoral institutions and voter uncertainty over the effects of globalization. We characterize a model in which voters observe compensation and pro-globalization policies and decide between candidates for office. As with other studies of assistance, it is not just or primarily the compensated workers who drive electoral responses (Margalit, 2011; Malgouyres, 2017; Autor et al., 2020). Following theories of sociotropic

voting, we assume voters make choices after observing economic outcomes in their community (Mansfield and Mutz, 2009; Mutz and Kim, 2017). They do so to resolve two kinds of uncertainty. First, voters are uncertain as to the level of harm imposed by globalization, particularly whether it is greater or less than what can be compensated. Second, voters cannot directly observe the candidate's level of policy commitment (Canes-Wrone et al., 2001; Maskin and Tirole, 2004; Fiorina, 1981; Ashworth, 2012). We assume both types of politicians initially advance a pro-globalization agenda, but one type is ideologically committed, willing to invest in compensation, but unwilling to reverse themselves on the issue of free trade (McArthur and Marks, 1988; Fordham and McKeown, 2003). Voters benefit from retaining a committed politician so long as the expected costs of globalization are not too high. The opportunistic politician is willing to reverse commitments to free trade, but cannot commit to compensation. Voters prefer an opportunistic politician if the costs of globalization are likely to be too severe to compensate. As a result, voters must evaluate the severity of the economic harm as well as the type of incumbent.

In this setting, we find that compensatory policy schemes can send electorally counterproductive signals about the economy. In what we call the *consternation effect*, compensation from a committed type can reveal negative information, in this case, about the likelihood that globalization has severe negative effects. Our model takes inspiration from Dreher (2004)'s analysis of the electoral incentives surrounding IMF borrowing. If only high-quality incumbents can borrow on the private market, politicians have incentives to forgo IMF loans to demonstrate their quality to voters. Domestic transfer schemes, by contrast, are available to all kinds of politicians, but are only needed under certain economic conditions. As a result, the choice to compensate can be a public validation of the risks of openness and provide an electoral advantage to more protectionist candidates.

To empirically validate this consternation effect, we examine the distribution of Trade Adjustment Assistance (TAA) benefits. TAA provides an opportunity to test our theoretical intuition because TAA is in part offered for reasons outside the control of strategic politicians. Following an instrumental variable strategy developed by Hyman (2018), we use variation in bureaucratic leniency to make access to TAA benefits exogenous. While the overall budget for TAA is set by legislation, community access to assistance depends on bureaucratic approval of individual petitions. These national-level bureaucrats use firm-level data to determine whether imports are responsible for the loss of a job or wages. The administrators charged with these investigations vary substantially in their baseline tendency to approve a petition for assistance. Using micro-data on certifications from the TAA program, we identify communities that were more or less exposed to the economic relief program on the basis of the arbitrary assignment of petitions to more or less lenient certifying officers.

We show that the electoral effect of TAA depends on the state of the local economy. Using the Chinese import competition data and the 2008 presidential election data, we find that compensation brings electoral backlash in regions where the informational value of compensation is high. In places with low levels of import competition, a ten percent increase in leniency of compensation causes a 3.8% decrease in the incumbent's vote share. The electoral backlash in low-shocked areas provides one explanation of why we observe the mixed relationship between compensation programs and globalization. Compensation in high-shocked areas benefits incumbent politicians in elections as voters there would not attribute compensation to policy failure of the incumbents. On the contrary, when compensation provides information about the negative costs of globalization, compensation can decrease public support for globalization. Pro-globalization candidates in democracies would then have incentives to under-provide compensation programs.

More generally, our paper offers a political economy explanation for why politicians often

<sup>1.</sup> A group of three or more workers, an employer, a labor union or a state workforce official is eligible to file a TAA petition.

<sup>2.</sup> We adjust a procedure developed by Hyman (2018) for TAA investigators to estimate leniency on the part of TAA certifying officers.

fail to join their initiatives with compensation programs (Acemoglu, 2003). In this case, they do so to avoid raising alarm about the distributive harm of their policy commitments. The negative information implied by compensation programs, when interacted with the voter's ability to discern candidate type, creates electoral incentives to suppress compensation. Localized economic shocks not only change individual political preferences (Bisbee, 2019), but they may also induce politicians to manipulate compensation programs.

The article is organized as follows. In the first section, we briefly review studies in the past that examine ways in which compensation programs affect elections. Subsequently, we introduce the setup of our formal model that treats compensation as a choice made by politicians. After deriving the consternation effect from the model, we test the theoretical implication in TAA distribution. In the following section, we apply the consternation effect in explaining two other forms of resource distribution, a government request for International Monetary Fund loans and a local hospital's provision of COVID-19 tests. We discuss the implications in the final section.

## 3.1 Compensation and Electoral Accountability

International political economy scholarship has long recognized the political necessity of joining pro-globalization policies with compensation (Kindleberger et al., 1986; Krasner, 1976; Ruggie, 1982; Rodrik, 2018). The failure of these policies to rise to this task is marked by the spread of anti-establishment and populist parties. In theory, negative economic shocks should increase support for more expansive social policy and for redistribution, strengthening the appeal of the left. But such shocks also tend to decrease trust in political institutions, thus potentially driving the voters to support radical or populist parties (Margalit, 2019).

One explanation for this paradoxical response is that economic decline exacerbates concerns about the efficacy of government. Public support for redistributive policies depend, in part, on a belief in the efficacy of a particular kind of government. In a large online survey experiment, individuals primed with information about high levels of inequality attributed that inequality to failed government policies. Respondents reported lower trust in government and lower support for poverty-alleviation policies (Kuziemko et al., 2015). We might expect that if politicians "let things get this bad" they cannot be trusted to fix it. This explanation may explain a number of findings that exposure to economic shocks drives up support for conservative politicians and politics. Autor et al. (2020) find, for instance, that there is a significant increase in support for Republican candidates and viewership of Fox New.

At the same time, not all social programs produce backlash. A number of studies find that individuals' experience of economic hardships such as unemployment increases their support for welfare programs (Owens and Pedulla, 2014; Naumann et al., 2016) and support for the left-wing parties (Giuliano and Spilimbergo, 2014). Relatedly, Park and Shin (2019) show that stronger welfare benefits weaken the voters' linkage between economic outcomes and electoral fortunes of incumbents, suggesting that more generous compensation enables incumbent politicians to avoid blame for economic failures. Some scholars find these electoral benefits in trade-related compensation programs. Compensating those who are hurt by trade helps an incumbent president to perform better in an election by reducing grievances of voters in the import-competing sector (Margalit, 2011; Ritchie and You, 2021).

In the following, we identify one way that electoral concerns may interact with private information to limit otherwise efficient policies. In this setup, voters seek to select politicians that perform well after the election. Our analysis follows the insight of Coate and Morris (1995), which roots policy inefficiency in the inability of citizens, in the pre-election stage, to discern whether politicians support a policy initiative to serve a set of special interests or the general welfare.

Our model is yet different from the electoral accountability models in the existing literature. In the setup of Coate and Morris (1995), inefficient but plausibly public-oriented

programs are used by incumbents to garner electoral support. Coate and Morris (1995) explain that this inefficiency is resolved if politicians can offer a credible signal, for instance financing the initiative by imposing a tax on the special interest (footnote 22). Our theory, however, shows that such policy commitment still fails to resolve the inefficiency as it can inform the state of local economy to the citizens.

In our model, the median voter decides whether to retain the incumbent politician based on informative signals about the incumbent and the state of local economy. In the first period, the median voter observes the policy choices of the incumbent and a noisy, binary signal of the latent economic conditions. This signal takes on two values, which we refer to as a factory closure, depending on which of three economic conditions (low, moderate, high) obtain. The politician is perfectly informed about the latent economic conditions, her own preferences, but not what signal the voter receives.<sup>3</sup> The median voter must then decide whether to reelect the incumbent or to choose a challenger whose reputation is drawn from some random distribution. Whoever wins the election decides policy in the second period.

## 3.2 Model Setup

We begin with an incumbent politician that has advanced an economic platform with some distributive risk, such as trade liberalization. Politicians, however, have private information about their commitment to trade liberalization, which we refer to as their type t. The first type is ideologically committed to trade liberalization (t = I), keeping the policy if reelected. A second type of politician, we label opportunistic, has a conditional preference for trade liberalization ( $t = \sim I$ ), and is willing to abandon the policy upon reelection but is unwilling to engage in compensation. This distinction may arise from electoral, ideological or special interest pressures that are not directly observed by the voters, for instance, the opportunistic politician may serve export interests that value the market benefits of globalization but op-

<sup>3.</sup> Hereinafter we assign male pronouns to the median voter and female pronouns to politicians.

poses compensation. Both types must strategically choose whether to enact a compensatory program  $(A \in \{0,1\})$  and, in a second period, whether to continue the economic initiative.

The two periods are divided by an election in which a representative voter must decide whether to reelect the incumbent or a challenger. He does so on the basis of his expectation that either politician will perform well in the second period. This performance is based on the match between the ideological commitments of the politician and the degree of distributive harm caused by the economic initiative. We identify three such levels  $i \in \{L, M, H\}$ , low, moderate and high, each of which has an associated negative effect  $E_i$ . The voter's prior belief over the probability of each level  $(\pi_i)$  sum to one. At low levels of distributive effect,  $(E = E_L)$ , he is better off with free trade. In the moderate levels of economic effect,  $(E = E_M)$ , the loss to the median voter is still recoverable with a compensatory policy. At the highest level of harm,  $(E = E_H)$ , the voter's loss is not recoverable even with the assistance.

To incorporate the trade-off between consternation and compensation, we assume that the median voter would prefer a committed politician (I) whenever he believes that the policy initiative is not excessively harmful. If not, he would prefer an opportunistic politician  $(\sim I)$  who does not compensate but may abandon the policy in the second period. The voter's belief about the type of politician depends on the amount of information produced by the politician's behavior, which in turn, depends on his knowledge of the distributive effects of the policy initiative.

We characterize two sources of information for the median voter about the prospective benefits of reelecting the incumbent. While voters are unaware of the exact level of distributive harm, they observe signals of the economic state  $E_i$ , the politician's choice, and a partially informative economic outcome. These costs could come in the form of a sudden influx of imports, or job losses. Here we model these informative costs as a binary indicator of whether a local factory is closed or open,  $F \in \{C, O\}$ . We assume that  $P(F = C|E_L) < P(F = C|E_M) < P(F = C|E_H)$ . Further,  $P(F = C|\emptyset) \ge 0$  is the probability of local factory closure due to idiosyncratic reasons that are uncorrelated to trade liberalization. In the following, we refer to each of these conditional probabilities as  $\theta_{E_i}$ .

The median voter (m) earns the same benefit  $\underline{v}$  from free trade, but can lose from a factory closure. With compensation, there is a redistributive tax  $(\tau)$  that provides the voter some direct assistance (a). Under the provision of the compensatory policy, his per period utility is:

$$u_m = \underline{v} + F + a - \tau$$

We model the opportunistic politician's unwillingness to offer compensation as representing groups that bear the redistributive costs of compensation. For these groups, we label the elite, the benefit of free trade is  $\bar{v}$  ( $\bar{v} > \underline{v}$ ), which, including the tax, produces the following utility:

$$u_e = \bar{v} + F - \tau$$

Finally, following Coate and Morris (1995), we model the committed politician (I)'s per period utility as  $v_I = u_m + T$ . T indicates the politician's value of maintaining the free trade if reelected. By contrast, when an opportunistic politician  $(\sim I)$  is in power, her utility is  $v_{\sim I} = u_e$ . Here  $v_{\sim I}$  is a reward of holding office, which does not include any additional benefit for maintaining free trade. This gives the opportunistic politician an interest in abandoning their pro-globalization agenda if it is revealed to be sufficiently damaging to their constituents.

# Reelection Prospects

Anticipating the politician's behavior in the second period, the median voter must decide whether to reelect the incumbent. Formally, the median voter's strategy is an election decision following each combination of compensation choices and factory closures, conditional on his prior about the incumbent's type.

The median voter's goal here is to have a committed politician (I) in the second period if globalization is believed to be at least moderately beneficial, but an opportunistic politician if not. If the voter chooses to not reelect, the local community ends up having a challenger (c) whose probability of being committed is  $\lambda_c$  drawn from the cumulative distribution  $G(\lambda)$ . The median voter reelects the incumbent under the combined posterior belief that the politician is committed (I), along with a sufficient belief that the degree of distributive harm is either low or moderate.

The following summarises the sequence of the two-period signaling game.

- 1. Nature draws the distributive effect of the initiative (E), the type of the politician  $(t \in \{I, \sim I\})$ , and a public signal (F).
- 2. The politician observes her type and the distributive effect of globalization (E).
- 3. The politician decides whether to implement the compensatory policy (A).
- 4. The median voter observes the compensatory policy (A) and the realized signal (F).
- 5. First period payoffs are realized.
- 6. The median voter decides whether to reelect the politician based on observing the local factory closing.
- 7. Upon reelection, the politician chooses whether to abandon their free trade program.

  A second factory closes and payoffs are realized.

## 3.3 Equilibrium Behavior

Given the setup, we now characterize equilibrium behavior. Consider the second period.

Second Period Decision-making If elected, the committed politician (I) will continue to advance free trade (E). Furthermore, she enacts the compensatory policy (A) if doing so is efficient. Recall, to account for the potential costs of compensation, we assume that compensation is efficient at either the moderate or high levels of distributive harm.<sup>4</sup> On the other hand, the opportunistic politician  $(\sim I)$  would not choose to provide compensation (A) in the second period regardless of the state of economy. As for the opportunistic politician  $(\sim I)$ , we assume that:

$$\underbrace{-\theta_{E_H}*C+\bar{v}}_{\text{Maintaining the initiative in high state}} < \underbrace{-\theta_{\emptyset}*C}_{\text{Abandoning the initiative}}$$

That is, the opportunistic ( $\sim I$ ) politician would abandon free trade if the probability of distributive harm is high  $(E=E_H)$ . This is the preferred outcome on the part of voters as well. As this option is not available for the committed politician, as we show in the following, there is an incentive for the committed type to avoid compensating voters in the first period, if doing so reveals high probability of distributive harm.

First Period Decision-making The median voter's posterior for ideologically committed politicians (I) depends on his prior  $(\bar{\gamma})$ , the observed compensation in the first period, and whether or not a factory is closed. We examine these outcomes as cases in turn, starting with the case in which a voter observes a closed factory. Upon observing the closure, the median voter becomes more pessimistic about the effects of free trade. While he knows that the politician cannot exactly predict factory closure, under certain conditions the joint information of the closure and the compensation updates his prior to the politician's type.

The posterior belief that the politician is committed (I) in the first round is a function of the priors and the behavior of the politician  $(P(t = I|A, F) \equiv \alpha(A, F))$ . Given the

<sup>4.</sup> In other words, the expected value of a compensatory program is negative ( $\theta_{E_L} * a - \tau < 0$ ) at low levels of negative distributive effect ( $E = E_L$ ).

cumulative distribution function of the challenger draws, the probability that the politician is more likely to be committed than the challenger is  $G(\alpha(A, F))$ . Similarly, R(A, F) indicates the probability of reelection in the second period given a choice of compensation (A) and the expectation over the conditions of the factory (F).

The median voter's strategy We describe an equilibrium as an ordered double, where the first entry describes the strategy of the ideologically committed politician (I), and the second the strategy of the opportunistic politician  $(\sim I)$ .

$$((x_{IL}, x_{IM}, x_{IH}), (x_{\sim IL}, x_{\sim IM}, x_{\sim IH}))$$

The strategy of the median voter is a mapping from the provision of compensation and the closure of the factory to either election or non-election of the incumbent, depending on his information, following (Coate and Morris, 1995).

We solve the model, identifying and examining a partial pooling equilibrium. In particular, we focus on an equilibrium in which the incumbent politician's strategy is (0, 1, 1) (0, 0, 0). Here the compensatory policy is only enacted by a committed politician (I) when it is socially efficient to do so (moderate or high levels of distributive harm). To evaluate whether this is an equilibrium, we test whether conditional on the other players' actions as well as the second-period behavior, each player has an incentive to deviate from this strategy.

If a committed incumbent chooses compensation, A=1, her expected utility from the first period includes the payoff from free trade  $\underline{v}$  and expected potential costs of factory closure. In the second period, the politician receives the benefits of reelection (R). Consider the state in which the politician observes moderate levels of harm:  $E=E_M$ . In this case, the committed incumbent would again enact the compensatory policy.

The combined two period utility for the incumbent in that case is:

$$\mathbb{E}[u_I|A=1] = \mathbb{E}[\underline{v}+F+a|E=E_M] - \tau + \delta(\mathbb{E}[R(1,F)[\underline{v}+F+a-\tau]|E=E_M])$$

$$= \underline{v} - \theta_{E_M} * (C-a) - \tau + \delta \mathbb{E}(R(1,F))(\underline{v}-\theta_{E_M}(C-a)-\tau)$$

This follows from the independence of the factory closure in the second period from the strategic behavior of the voters.

If the committed politician deviates in the first period, the politician instead receives:

$$\mathbb{E}[u_I|A=0] = \underline{v} - \theta_{E_M} * (C) + \delta \mathbb{E}(R(0,F))(\underline{v} - \theta_{E_M}(C-a) - \tau)$$

The committed politician (I) does not deviate so long as:

$$\tau - \theta_{E_M} a < \mathbb{E}[R(1, F) - R(0, F)](\underline{v} - \theta_{E_M}(C - a) - \tau)$$

That is, the change in the probability of being reelected times the benefits of being reelected must outweigh the net benefits of the compensatory policy in the first period. Note this equation only depends on the likelihood of a factory closing in the moderate state because any electoral cost that works in this condition would also work for if the likelihood of factory closer were high. In the following, we examine the expected change in the probability of being reelected,  $\mathbb{E}[R(1,F) - R(0,F)] \equiv \mathbb{E}[\Delta R]$ .

Expanding  $\mathbb{E}[\Delta R]$ , it appears that the expected electoral benefit of the compensatory policy is a weighted combination of the benefit under the two realizations of F. The first and the second terms in Equation 3.1 depend on  $\theta_{E_i}$ , the probabilities of F = C given the state of the economy. If the likelihood of a negative signal is high (high  $\theta_{E_M}$ ), the relative size of the first term outweighs that of the second term. If the likelihood of a negative signal is low (low  $\theta_{E_M}$ ), the relative size of the second term outweighs that of the first term. This means the signaling value of compensation for the quality of a politician increases if the median voter is less likely to observe evidence of distributive harm.

$$E[\Delta R] = \underbrace{\theta_{E_M} * ([R(1,C) - R(0,C)]}_{\text{Signaling economic status}} + \underbrace{(1 - \theta_{E_M}) * ([R(1,O) - R(0,O)]}_{\text{Signaling the incumbent type}}$$
(3.1)

The incumbent politician anticipates the realization of F, but she does not know it with certainty. Intuitively, the electoral value to compensation in this model is increasing in the likelihood that the assistance is needed. We summarize this insight in the following proposition:

**Proposition 1.** The Consternation Effect: The electoral advantage of a compensatory policy is increasing in  $\theta_{E_M}$ , the probability of the negative signal F = C.

This proposition follows immediately from the first part of Equation 3.1. This is consistent with the intuition that the electoral value to provide assistance is increasing in the likelihood that voters observe a need for assistance. Based on Proposition 1, we in the appendix derive conditions under which the committed politician (I) deviates from her strategy (0,1,1) and strategically withhold compensation.

This model offers three general insights into the electoral politics of compensatory policies. The first, extending the reasoning of Coate and Morris (1995), is that compensation simultaneously informs whether the politician aligns with the voter interests and how the politician evaluates the economic environment. Second, we show that in such situations compensation can be electorally costly, for instance, when politicians are ideologically committed to policies. In the context of our model, this is the case of politicians endorsing free trade even if the trade is likely to harm the local community. Third, anticipating these electoral costs, politicians would strategically under-provide compensation, even if it would otherwise be in the interests of both the incumbent and the median voter.

#### 3.4 Evidence from TAA

In this section, we validate the theorized effect of compensation on electoral behavior. To do so, we first explain two challenges in studying the electoral effects of compensation programs and describe how we address those challenges. We then explicate why the provision of Trade Adjustment Assistance (TAA) and the 2008 presidential election is a good testing ground for our theoretical prediction.

The formal model identifies conditions under which compensation would drive voters to turn against the incumbent. However, two factors confound empirical analysis. The first is that compensation is only observed in communities with some level of distributive harm. Therefore, channels other than the compensation may drive the election outcomes. Second, according to the model, politicians should expect compensation to have these electoral effects, and limit access to compensation accordingly. For both reasons, the observed levels of the compensation could be either spurious to electoral responses or reflect strategic calculations on the part of politicians.

To identify the electoral costs of compensation, we leverage conditions in which politicians have imperfect control over the provision of TAA (Hyman, 2018). TAA is the single largest compensation program in the United States that is targeted to help workers and firms displaced by trade competition. Over the past 45 years, the program has compensated over 5.35 million workers with 32.5 billion dollars. Legislators pass appropriations that determine the overall size of TAA, which can be subject to lobbying and electoral interests (Rickard, 2015; Ritchie and You, 2021). However, access to TAA benefits must be approved by career bureaucrats inside the Office of Trade Adjustment Assistance, a subdivision of the Department of Labor. These bureaucrats exhibit substantial variation in their baseline tendency to approve petitions, making aggregate levels of access, in part, a question of which certifying officer happens to be assigned the petition. Hyman (2018) finds that because these assignments are effectively random, it is possible to use variation in compensation associated with

this arbitrary allocation across bureaucrats. Doing so addresses the endogeneity of economic relief that has long plagued studies of compensation. The arbitrary allocation of bureaucrats forces politicians to face constituents with both more or less than optimal compensation. To validate the consternation effect, we examine whether counterfactual over-provision of TAA generates an electoral backlash.

Our proposed explanation asserts that the distribution of TAA informs the median voter about the distributive consequences of free trade. We cannot precisely discern whether the median voter is aware of this information, but local media allows voters to grasp the levels of TAA. Research into the public responses to plant closures find significant media uptake, and communities often depend on the outcomes of petition decisions (Margalit, 2011). For instance, in each year between 2000 and 2008, there are about 1,000 news articles indexed on Lexis Nexis as mentioning 'Trade Adjustment Assistance' (Lexis Nexis). TAA certifications are accompanied by press releases from the Department of Labor (Figure B1 in Appendix), which are then reprinted in local media (Figure 3.1). The Department of Labor not only publicly announces causes of a petitioner's displacement, but also reveals the country of origin of that displacement, further raising its salience for voters.

#### The China Shock and the 2008 Presidential Election

We use the "China shock" identification strategy developed by Autor et al. (2016), to proxy for the voter's prior information about the distributive effects of free trade. The China shock refers to a sudden increase in Chinese exports after its entry into the World Trade Organization in 2001. Using the China shock measure, we evaluate how government assistance during an economic shock changes outcomes in a presidential election. We choose the presidential election over other types of elections because the economic initiative tested here is trade liberalization, and the president at least in the United States exercises greater control over trade negotiations in comparison to legislators and governors (Bailey et al 1997). Tempo-



Figure 3.1: Media Coverage of the TAA Decision

Notes: Marry Ann Thomas, Pittsburgh Glass Works laid-off Workers Cleared for Federal Benefits, April 26, 2018, TRIB LIVE,

https://archive.triblive.com/local/valley-news-dispatch/

pittsburgh-glass-works-laid-off-workers-cleared-for-federal-benefits/, Last Retrieved on July 10, 2021.

rally, we investigate the county-level Republican vote share change between the 2000 and 2008, a period known as the height of the China shock (Setser, 2018).

As the China shock was experienced under the leadership of the Republican president George W. Bush, the Republican party nominee John McCain corresponds to the incumbent politician in our formal model. The Democratic party nominee Barack Obama corresponds to the challenger. The 2008 presidential election provides an empirical setting to test the consternation effect, as the people had to decide whether to maintain support for the Republican party after observing George W. Bush's initiative on trade liberalization, TAA compensation provided, and closed factories in their local communities.

Prior studies find that voters in regions that are adversely affected by import competition reject incumbents (Autor et al., 2016), and government assistance to limit its negative effects decreases the electoral backlash (Margalit, 2011; Ritchie and You, 2021). According to the consternation effect, however, such mitigating effect of government assistance should be conditional on the voters' perceived state of the local economy. Voters evaluate politicians both in terms of their performance such as government assistance and what they understand as the effects of their policy commitments. Voters may perceive the China shock as a distributive issue that requires compensation, or as evidence that discloses the costs of free trade. If the former perception pervades, voters would support a presidential candidate who advances more compensation in hard times. If the latter perception becomes dominant, however, TAA compensation would reveal the incumbent's commitments on free trade which in turn can decrease support for the incumbent.

George W. Bush ran on and advanced a robust trade liberalization agenda throughout his two terms. During the 2000 campaign, then Governor Bush promised that in his administration, "China will find in America a confident and willing trade partner," making a moral case that the US exports American values along with goods: "Trade freely with China, and time is on our side."<sup>5</sup> When sitting in the Oval Office, he continued to push for trade liberalization by concluding multiple trade agreements. Before the Bush administration, the US had signed only four preferential trade agreements, with Israel in 1985, Canada in 1988, the North American Free Trade Agreement (NAFTA) in 1993, and Jordan in 2001. In just six years from 2002 to 2007, his administration concluded eleven additional trade agreements.<sup>6</sup> The Trade Promotion Authority (TPA) passed in December 2001 facilitated the negotiation and conclusion of those bilateral trade agreements.

Taking over the pro-trade liberalization stance of the Bush administration, John McCain during the 2008 presidential election took a strong stance in favor of free trade. He said he "rejects the false virtues of economic isolationism" with the reasoning that "America is the biggest exporter, importer, producer, manufacturer, and innovator in the world" (Obama & McCain back-to-back speeches at NALEO, Jun 28, 2008). Describing the US's preferential trade agreement with Columbia as "something that is a no-brainer (2008 third presidential debate against Barack Obama Oct 15, 2008)," he deemed globalization "an opportunity for American workers today and in the future (Campaign plan: Bold Solutions for Economic Prosperity, Feb 3, 2008)."

Barack Obama, on the other hand, emphasized the necessity to amend existing preferential trade agreements for the interests of American workers. While admitting that it is impossible to turn back the tide of globalization (Speech in Flint, MI, in Change We Can Believe In, p.245-6, June 15, 2008), <sup>10</sup> he promised to fix NAFTA and add labor agreements

<sup>5.</sup> See https://www.mtholyoke.edu/acad/intrel/bush/wspeech.htm for more details. Retrieved on July 1, 2021.

<sup>6.</sup> The eleven preferential trade agreements that the US concluded are with Australia, Bahrain, Chile, Columbia, the Dominican Republic and five Central American countries (or CAFTA-DR), South Korea, Morocco, Oman, Panama, Peru, and Singapore.

<sup>7.</sup> See https://www.ontheissues.org/2008\_NALEO.htm for more details. Retrieved on May 28, 2021.

<sup>8.</sup> See https://www.ontheissues.org/2008\_Pres\_3.htm for more details. Retrieved on May 28, 2021.

<sup>9.</sup> See https://www.politico.com/pdf/PPM103\_7.7.08\_jobs\_for\_america\_briefing\_paper.pdf for more details. Retrieved on May 28, 2021.

<sup>10.</sup> See https://abcnews.go.com/Politics/story?id=5183862&page=1 for more details. Retrieved on

(AFL-CIO Democratic primary forum, August 7, 2007).<sup>11</sup> Compared to John McCain, his stance on free trade in 2008 was more flexible, describing global trade as "unsustainable" if it favors the few and not the many (Obama, 2008, p.268).

## Model Specification

We test how compensation affects the Republican party vote share conditional on the level of distributive harm. The independent variable is the interaction term between the China shock and the leniency of TAA provision. The dependent variable is the outcome of the 2008 presidential election. In the following, we elaborate how we construct each variable, and explain the estimation strategy as well as other covariates used in the model specification.

China Shock The China shock variable gauges the intensity of the trade damage in a county. This is measured as contemporaneous change in import exposure  $\Delta IP_{i\tau}^{cu}$  in the commuting zone (CZ) i (Autor et al., 2013, 2016). A commuting zone (CZ), a cluster of counties based on journey-to-work data, is a geographic boundary devised to better delineate local economies. Following the existing approach, we stack the ten-year equivalent first differences for the two periods, 1990 – 2000 and 2000 – 2007, and  $\tau$  is the time indicator variable capturing each decade. Formally,  $\Delta IP_{i\tau}^{cu}$  can be written as:

$$\Delta I P_{i\tau}^{cu} = \sum_{k} \frac{L_{ikt}}{L_{it}} \Delta I P_{k\tau}^{cu} \tag{3.2}$$

The fraction  $L_{ikt}/L_{it}$  is the employment share of the industry k in the commuting zone (CZ) i in year t, the start year of the period  $\tau$ . This measure assumes that the Chinese import competition is not driven by the demands of consumers. For instance, if the sudden import competition is driven by the changes in tastes of Americans, voters would not see

May 28, 2021.

<sup>11.</sup> See https://www.nytimes.com/2007/08/08/us/politics/07demsforum.html for more details. Retrieved on May 28, 2021.

the influx of goods as distributive harm caused by free trade.

We follow the instrumental variable estimation strategy of Autor et al. (2013) and Autor et al. (2016), which instruments import competition with lagged contemporaneous changes in Chinese imports to eight other non-US high income countries. Formally, this instrument  $\Delta IP_{i\tau}^{co}$  can be written as:

$$\Delta I P_{i\tau}^{co} = \sum_{k} \frac{L_{ikt-10}}{L_{it-10}} \Delta I P_{k\tau}^{co}$$

$$\tag{3.3}$$

For  $\Delta IP_{i\tau}^{co}$  to be a valid instrument, we must assume that the processes that enable China to export to non-US destinations are exogenous to US political dynamics and that the changes in US-import activity are the only way that exports to non-US destinations affect US politics.<sup>12</sup>

Leniency of TAA Provision We use the TAA certification rate as a measure of the incumbent's response to trade-related displacements.<sup>13</sup> In evaluating the Republican candidate, a voter would determine whether trade benefits his community and whether or not the Republican party is committed to trade openness. Past allocations of TAA before the 2008 presidential election would be informative to both questions.

According to our formal model, compensation is endogenous to the strategies of politicians, potentially biasing estimates of the electoral effects of compensation. To overcome this endogeneity, we again use an instrumental variable strategy, instrumenting commuting zone (CZ)-level TAA allocations. Our instrument uses variation in the behavior of certifying officers, government bureaucrats who are in charge of certifying TAA petitions. All of them

<sup>12.</sup> The model suggests one way that this would be violated, namely politician's endorsement of trade adjustment assistance in anticipation of these import flows. We account for this by instrumenting for access to TAA in the subsequent section.

<sup>13.</sup> We use the certification rate as the measure of compensation instead of the total dollar amounts of compensation provided (Autor et al., 2013) or congressional voting records of politicians on economic relief bills (Che et al., 2016). According to the consternation effect, the incumbent's decision to provide compensation to individual workers should matter more than the magnitude of compensation provided.

work at the Office of Trade Adjustment Assistance located in the Washington, DC, and they determine a local petitioner's eligibility TAA benefits based on reports from investigators. We assume their leniency affects the Republican vote share only through certification of TAA petitions.<sup>14</sup> If there is a TAA petition p in CZ i and if there are in total m petitions from that CZ, the instrumented TAA certification rate  $(\widehat{TAA_i})$  can be calculated as follows:

$$\widehat{TAA}_{pi} = \widehat{\alpha} + \widehat{\beta}(\text{Certifying Officer})_{pi}$$

$$\widehat{TAA}_{i} = \frac{\sum_{p=1}^{m} \widehat{TAA}_{pi}}{m}$$

 $\widehat{TAA}_i$  is the average of predicted TAA certification rate of at the CZ i. Our detailed construction of the instrument is described in the appendix.

We follow Hyman (2018) in using the allocation petitions across TAA bureaucrats, akin to judge randomization studies (Dahl et al., 2014; Galasso and Schankerman, 2015; Aizer and Doyle Jr, 2015; Gupta et al., 2016; Bernstein et al., 2019). TAA investigators examine and review TAA petitions before certifying officers make the final decisions. Where Hyman (2018) used the former, we use the latter as our instrument. In comparison to investigators, certifying officers are senior and have more discretion in approving TAA petitions. Moreover, certifying officers do not specialize in particular industries or regions. They are also institutionally more insulated than investigators, and this allows them to be relatively free from political pressure. 16

<sup>14.</sup> We find that the instrument is indeed not associated with most of the pre-determined characteristics. One exception is the lagged share of manufacturing (See Table B5) which is statistically significant at the 0.1 level. At the significance level of 0.05, none of the pre-determined characteristics predicts the certifying officer assignment.

<sup>15.</sup> Previous experience with a company or an industry affects case assignment of investigators at the Office of Trade Adjustment Assistance (Hyman, 2018).

<sup>16.</sup> Kim (2021) finds that investigators with career uncertainty are particularly responsive to the party affiliation of a president. Using bureaucrats who are sensitive to political pressure as an instrument can be potentially problematic. If investigator leniency affects the Republican vote share (dependent variable) through a mechanism other than the observed TAA certification (independent variable), it would violate the exclusion restriction.

We estimate a weighted two-stage least-square (2SLS) regression, adjusting for industry/occupation, demographic, and geographic controls. All industry, occupation, and demographic controls are lagged to avoid post-treatment bias. These industry/occupation controls include the share of manufacturing employment in the commuting zone, a routine-task-intensity index, and an offshorability index to account for differences in community exposure to offshoring. The demographic controls are the percentage of female employment, college-educated, and foreign-born, which again could alter the probability of exposure to economic shock and are associated with voting patterns. Finally, we use broad geographic controls: the census division of Northeast, South, West, and Midwest to control time-invariant geographic characteristics that are correlated with both the support for the Republican party and TAA certification. Formally, our empirical model can be represented as:

$$\Delta Y_j = \gamma_\tau + \beta_1 \Delta I P_{i\tau}^{cu} \cdot \widehat{TAA}_i + \beta_2 \Delta I P_{i\tau}^{cu} + \beta_3 \widehat{TAA}_i + Z_{it}' \beta_4 + e_{i\tau}$$
 (3.4)

 $\Delta Y_j$  is the gain in the Republican vote share in 2008 relative to 2000 in county j. The model includes a separate time indicator variable for the stacked first difference estimation  $\gamma_{\tau}$ , where  $\tau$  indicates each of the two periods (1990 – 2000 and 2000 – 2007).  $\Delta IP_{i\tau}^{cu}$  is the import penetration measure that varies by the CZ i and period  $\tau$ .  $Z_{it}'$  is the start-of-period (t) economic conditions and demographic, geographic characteristics that vary by CZs. The 2SLS model is weighted with the county-level total votes in the 2000 presidential election. This is to recover individual-level estimates and to avoid overestimating the impact of the China shock in small-sized counties.

**Data Coverage** Our analysis uses CZ-level trade shock data and petition-level TAA data to predict presidential election outcomes at the county-level. In particular, we observe the percentage share of votes going to the Republican candidate across 2,499 counties in 2008

relative to 2000, excluding Alaska and Hawaii (McGovern, 2019). This measure ranges from about -28 to +33 percent, with most counties swinging away from the Republicans in 2008.

The trade shock measure, CZ-level Chinese import penetration per worker, indicates wide variation across the country.<sup>18</sup> These data cover 722 CZs in each of the two periods. To transform the CZ level data to the county, we obtained the county-CZ conversion table from the Economic Research Service at the Department of Agriculture. This conversion table enables matching the unit of the China shock (CZ-level) to that of the presidential election (county-level). Again, we join these data with the Autor et al. (2013) instrument, a measure that reflects imports from China to eight non-US high-income countries and ten-year-lagged per period employment.<sup>19</sup>

To complement these existing data sources, we collected petition-level TAA data.<sup>20</sup> These data record detailed information about each petition, such as the date of petition registration and certification, petition outcome, and address of the company which is subject to the petition. The last names of investigators and certifying officers in the dataset allow tracing which bureaucrat is involved in each TAA petition. These data cover the universe of petitions from 1975 to 2017, but for our purposes only observations between the 2004 and 2008 presidential elections are used in the analysis.<sup>21</sup> During this period, 9,035 petitions were

<sup>17.</sup> Tony McGovern, https://github.com/tonmcg/US\_County\_Level\_Election\_Results\_08-16. 609 counties never experience a TAA petition.

<sup>18.</sup> The import penetration measure incorporates the change in the US imports from China across the four-digit Standard Industrial Classification (SIC) industry-level for each period (1990-2000 and 2000-2007), based on the US census and the County Business Patterns data.

<sup>19.</sup> The eight countries are Australia, Denmark, Finland, Germany, Japan, New Zealand, Spain, and Switzerland.

<sup>20.</sup> This dataset now publicly available at the Employment and the Training Administration, Department of Labor website. See https://www.dol.gov/agencies/eta/tradeact/data/petitions-determinations.

<sup>21.</sup> Specifically, we include petitions evaluated between November 3, 2004 to November 3, 2008. Observations from 2000 to November 2, 2004 are excluded as there are too many missing observations on last names of certifying officers.

## 3.5 Empirical Estimates

Based on the model specification, we examine whether voters in areas with low economic shock turn against the incumbent when more government assistance is provided. Column 1 of Table 3.1 displays the coefficient estimates from an OLS model. Column 2-5 display the coefficient estimates from the 2SLS regressions. Column 3 adds the industry and occupation controls, and Column 4 adds the demography controls. Column 5 further adds the region control.

We find evidence of electoral backlash in areas with low levels of import competition. All five models in Table 3.1 show that more generous government assistance (Instrument TAA Cert. rate) decreases support for the incumbent Republican party. We interpret this result as evidence in favor of the consternation effect in Proposition 1. The fact this backlash only occurs at low levels of import competition is consistent with an informational effect of TAA, as the median voter is less likely to observe direct evidence of distributive harm (Equation 3.1). According to our theory, these communities would otherwise be optimistic about the prospects of reelecting a Republican, pro-trade candidate. In these communities, the incumbent party would have fared better if not for the excess allocation of TAA.

For more intuitive interpretations, we re-coded the China shock variable ( $\Delta$  Import Penetration) and the China shock instrument ( $\Delta$  Lagged Import Penetration of Other Countries) into binary indicators. 22 45% of counties (1,083 counties) are categorized as "high-shocked areas," and the remaining 55% of them (1,321 counties) are categorized as "low-shocked areas." Figure 3.2 geo-locates the distribution of these high and low-shocked counties. As Figure 3.3 shows, in the high-shocked counties, a ten percent increase in government assistance increases the Republican vote share by 1.1%. However, in low-shock counties, a ten

<sup>22.</sup> Figure B4 in the appendix provides the density plots of the two variables.

percent increase in government assistance decreases the Republican vote share by 3.8%.<sup>23</sup>

The results illuminate two different channels in which compensation affects elections. In high-shocked counties where the informational value of compensation is low, TAA helps an incumbent party by addressing voter grievances with import competition. This is consistent with some of the previous studies that find the positive relationship between compensation and elections (Hays et al., 2005; Margalit, 2011; Ritchie and You, 2021). In low-shocked counties where the informational value of compensation is high, however, compensation can harm an incumbent party by certifying threat caused by economic openness. The finding indicates that politicians may have incentives to under-provide compensation in low-shocked counties so that voters do not attribute compensation to negative costs of globalization.

The electoral backlash in low-shocked areas suggests the possibility of government assistance mediating the relationship between the economic shock and the election outcomes. In the appendix, we additionally evaluate whether this mediating relationship holds. We find that voters in low-shocked counties, after observing more generous government assistance, are less likely to vote for the incumbent party candidate by 2.25% (p-value = 0.08).

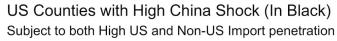
#### 3.6 Potential Extensions

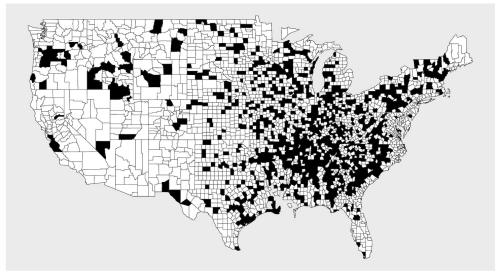
Although this paper focuses on allocating assistance benefits to workers, the consternation effect can be useful to explain other forms of economic relief and resource distribution. In this section, we briefly use the consternation effect to shed light on two different issue areas that also involve targeted benefits, a government's request for loans to International Monetary Fund (IMF), and a local hospital's provision of tests in the early phases of COVID-19.

IMF Assistance The consternation effect can explain why some governments end up not asking for assistance from IMF during financial crises. In the existing literature, there are

<sup>23.</sup> Table B6 provides the regression table of Figure 3.3.

Figure 3.2: Binary China Shock Map





Notes: The instrumented China shock measure is drawn at the CZ-level, but this map is drawn at the county-level.

mixed explanations on what makes governments to participate in IMF programs. Leaders would want to participate in IMF programs to recover quickly from bad economic shocks, to implement unpopular policies while shifting blame for austerity to IMF, and to bypass domestic veto players in carrying out financial reforms (Remmer, 1986; Vreeland, 2006). On the other hand, leaders would not turn to IMF if doing so informs markets and investors that their economies are in bad shape, and signals their people that the incumbent governments are incompetent (Papi et al., 2015; Dreher, 2004). There are mixed empirical findings as well on the effect of entering into IMF programs on elections. Przeworski and Vreeland (2000) show that governments tend to avoid participating in IMF programs right before elections. Nelson (1992), however, find that governments that do enter into IMF programs before elections are more likely to be reelected.

Our framework provides an explanation that can resolve these mixed empirical findings.

Table 3.1: Heterogeneous Effect of TAA on Changes in Republican Vote Share

	Dependent variable:				
	Changes in Republican Party Vote Share				
	OLS	2SLS	+Ind/Occ	+Demography	+Region
	(1)	(2)	(3)	(4)	(5)
$\Delta$ Import Penetration	-5.23**	-10.63***	-7.74***	-5.04*	$-4.85^{*}$
-	(2.10)	(2.97)	(2.80)	(2.62)	(2.48)
Instrumented TAA Cert. Rate	-0.40***	-0.54***	-0.27***	-0.27***	-0.36***
	(0.08)	(0.10)	(0.10)	(0.09)	(0.09)
$\Delta$ Import Penetration*	0.09**	0.18***	0.13***	0.09**	0.08**
Instrumented TAA Cert. Rate	(0.03)	(0.05)	(0.04)	(0.04)	(0.04)
Constant	20.43***	28.81***	-2.62	31.84***	33.00***
	(5.32)	(6.37)	(6.29)	(5.99)	(5.79)
Estimation	OLS	2SLS	2SLS	2SLS	
2000 Ind/Occ Controls	No	No	Yes	Yes	Yes
2000 Demography Controls	No	No	No	Yes	Yes
Census Division Dummies	No	No	No	No	Yes
1st Stage F-Stat		1236.4	645.56	627.05	600.52
Observations	4,998	4,998	4,998	4,998	4,998

Notes:

N=2,499 counties, excluding counties in AK and HI

That is, leaders would not turn to IMF if doing so certifies the dangers of keeping themselves in office. In our model, this danger would arise if the leader is unlikely to be the preferred candidate to reverse economic policies. Under those conditions, the request IMF assistance, which otherwise would be suggestive of incumbent quality, instead also reveals a mismatch. Anticipating the consternation, incumbent would be reluctant to participate in IMF programs especially when the people without the IMF assistance are not likely to recognize how bad their economies are (low  $\theta_{E_M}$ ). In contrast, governments with relatively bad financial reputations (high  $\theta_{E_M}$ ) would worry less about the backlash and request IMF assistance without delay. The median voter thus would not attribute economic shocks to the incumbent's economic policies and would maintain support for the incumbent.

Heterogeneous Effects of TAA Leniency by Degrees of Import Penetration

Low

High

5,

57.5 60.0 62.5 65.0 67.5 57.5 60.0 62.5 65.0 67.5 57.5 80.0 62.5 65.0 67.5 Predicted TAA Certification Rate

Figure 3.3: Heterogeneous Effects of TAA in High and Low-shock Counties

Notes: Sample size = 4,998, Attached with 99% confidence interval

The theoretical prediction from the consternation effect is consistent with Dreher (2004)'s empirical finding that voters punish incumbents for getting IMF assistance when the state of the economy is not too poor. More specifically, Dreher finds that receiving IMF assistance within six months of an election decreases the likelihood of reelection, particularly when gross domestic product (GDP) growth rate is relatively high (low  $\theta_{E_M}$ ).

COVID-19 More broadly, the consternation effect can also affect targeted non-economic programs. In early February 2020, the United States Centers for Disease Control and Prevention requested sentinel surveillance for COVID-19 across six cities. The aim of the sentinel surveillance was to detect how quickly coronavirus was spreading and to quarantine those who got infected accordingly. Unexpectedly, fewer tests were conducted for the following five weeks. Only one out of the six cities had any results from completed coronavirus tests

(Sommer, 2020). Not only the tests, but also the medical facilities were under-provided. In other countries, efforts to construct medical centers were frustrated in advance, including a coronavirus targeted center in Bangladesh (Kamal, 2020; NEWAGE Bangladesh, 2020).

The consternation effect can provide one answer to the lack of tests and treatment centers in the early phases of the coronavirus outbreak. Our model theorizes the interactions between the incumbent politician and median voter, but it can be extended to the interactions between a local hospital as a resource provider and local resident as a potential customer of the hospital. When a local community has zero or a few existing documented cases of COVID-19, a local hospital according to the consternation effect would be unwilling to provide coronavirus tests and treatments to a local resident. If the resident is COVID-19 positive, that may scare away other local residents who want to get their treatments at a safe hospital. The provision of coronavirus tests and construction of treatment centers in the early phases of COVID-19 could reassure or produce alarm. Following our theory, those who provide the tests and treatments would not want to distribute their medical resources if doing so informs people that their community is in danger.

In support of this intuition, local hospitals from media interviews hinted that they were reluctant to actively conduct coronavirus testing in the early phases of COVID-19. They were concerned that by providing the tests and confirming positive cases of coronavirus, local residents might identify the hospitals as a source of infection (Sommer, 2020). Dr. Prabhu Gounder, the medical director of the Respiratory Disease Unit at the Los Angeles County Department of Public Health, explained that the LA hospital board that he talked with seemed to have "a stigma that would potentially be bad for the hospital" in terms of "the potential for the patients to be anxious and concerned that they may be exposed to COVID by coming to this hospital."

In the case of Bangladesh, it was the local protest by panicked residents that discouraged construction of the medical center that would otherwise host over 300 coronavirus-infected

patients. The local residents feared that the facility would "spread the virus in the neighborhood." The panicked residents chanted slogans against the construction, and some even attacked the construction workers (NEWAGE Bangladesh, 2020). The protest led the project funders, *Akij Group* and *Gonoshasthaya Kendra*, to halt construction (Mahmud and Islam, 2020). The providers apparently were deterred by the consequences of building a hospital on local beliefs.

#### 3.7 Conclusion

This study examines the electoral politics of compensation. In our setup, private information available to politicians about the need for compensation can become a liability, as voters infer that compensation is offered to its necessity. The result is that citizens can react negatively, knowing that compensation is "too little, too late" and opting for candidates that are flexible enough to abandon their initiatives.<sup>24</sup> Ideologically committed politicians would optimally respond to this electoral incentive by forgoing compensation, even under conditions where compensation is broadly efficient.

This insight helps explain otherwise puzzling patterns in electoral responses to compensation. Some recent papers have found electoral effects of seemingly exogenous trade shocks (Dippel et al., 2015; Malgouyres, 2017; Autor et al., 2020). While some studies find that voters' response to the negative economic shocks can be muted with compensation (Margalit, 2011; Park and Shin, 2019), other studies find that voters under negative economic shocks vote for radical or populist parties that provide less compensation (Kuziemko et al., 2015; Autor et al., 2020). We resolve this empirical debate by showing that compensation is only successful in counties with high levels of displacement. Otherwise, voters exposed to compensation tend to opt for a challenger who is likely to abandon economic openness.

<sup>24.</sup> In our framework, the notion of punishing candidates for doing "too little, too late" can be rationally understood as voters judgment that, having offered compensation, candidates in effect admit that they knew there were risks to their commitments in the first place.

The mechanism that we identify raises issues with the general use of economic instruments such as the China shock for policy outcomes. For identification, it is necessary for the instrument to satisfy the exclusion restriction, namely that the shock only affects voters via an economic channel. However, many economic instruments provide information to both voters and politicians. If so, politician choices of compensatory policy may alter voter response in ways that create another path to electoral responses. We should generally expect that voters' understanding of economic outcomes can be subject to political manipulation, which would in the end frustrate causal analyses.

Our findings have implications for the sustainability of economic liberalization in democracies. Governments would ideally cushion shocks from globalization by proactively compensating workers displaced by globalization, but the electoral logic we identify deters politicians from providing compensation at the earlier stages of economic shocks. Instead, rational politicians in democracies wait until after the harm is done, to make sure that voters do not attribute potential economic failures to their policy platforms. As a result, compensation is likely to be provided long after the "golden hour" to recover from economic shocks. As long as compensation targets those who are adversely affected by globalization, we would continue to observe passive and constrained compensation.

#### CHAPTER 4

# WHO WANTS TO WORK AT A TRANSPARENT INTERNATIONAL ORGANIZATION?

International bureaucrats are hired to improve the functioning of international organizations (IOs). They serve member states by facilitating negotiations and monitoring member states' compliance with international agreements. Theoretically, growing IO membership should increase the demands for international bureaucrats. As more states join an IO, there should be more occasions in which international bureaucrats can help coordinate diverse conflicting interests.

Empirically, however, international bureaucrats these days exercise less power than they used to. The discretion of the Director Generals (DGs) in the World Trade Organization (WTO), for example, has been reduced over time. They were previously "a spiritual leader of the international trade system," but over time they have become "an international spokesperson and marketing executive" (Trondal et al., 2013, p.94). Not only those in the leadership position, but also the middle-ranking Secretariat officials in recent years have been increasingly bypassed by negotiators (Elsig, 2011). One WTO staff anonymously interviewed that "As a young professional during the Tokyo Round I could do more against the will of members than today as a Director." Then what explains this declining role of the Secretariat officials?

Previous studies describe the declining influence of international bureaucrats as the decision made by member states. Member states are concerned about the consequence of delegating too much authorities to international bureaucrats, thus they collectively agree to curtail the power of international bureaucrats (Urpelainen, 2012). When curtailing the power of international bureaucrats, member states shrink the boundary of their formal power

<sup>1.</sup> Tokyo Round negotiations lasted from 1973 to 1979. This is a quote from Elsig (2011) at an interview with a WTO Director on January 22, 2007.

and delegate more authorities to their own ambassadors. These ambassadors, also known as "proxiamate principals," take over what was previously done by international bureaucrats (Elsig, 2011). The assumption behind this explanation is that the demands of the member states determine the degree to which international bureaucrats exercise power as outcomes.

In contrast to these state-centric views, I argue that international bureaucrats may strate-gically choose to stay silent to adapt to changes in institutional environment of IOs. I develop a formal model which shows that increasing transparency in IOs can discourage international bureaucrats from exerting effort who would otherwise facilitate negotiations. IOs have become more transparent in recent years (Dingwerth et al., 2020; Jones, 2009). Meeting records and information about the compliance of member states are now often publicly available. If international bureaucrats respond to this institutional change, we should observe their declining influence regardless of the decisions made by member states.

The core insight of this paper is that international bureaucrats as a mediator might perform passively under transparency to maintain their appearance of impartiality. The reputation of impartiality empowers international bureaucrats to wield informal power (Johnson, 2014; Nair, 2020). The appearance of impartiality enhances their credibility to principals, thereby increasing their influence during negotiations. Yet some of their tasks during negotiations invariably involve favoring one side over the other. In such settings, transparency in IOs may undercut international bureaucrats' incentives to offer substantive resolutions in negotiations.

In this paper, I construct a formal model that treats the effort of international bureaucrats as endogenous. By doing so, I find that in equilibrium, international bureaucrats under transparency exert minimal effort in a negotiation when the amount of bias necessary to conclude a negotiation is sufficiently big. The corollary prediction is that international bureaucrats with long career prospects, among others, would respond to transparency in a greater magnitude. I also find a long-term pessimistic consequence of transparency; com-

petent international bureaucrats in equilibrium end up not working at IOs. Knowing that their optimal strategy after entering IOs is to perform in a passive manner, they choose to not work at IOs from the beginning. The implication is that IOs that adopt transparency as an institutional feature may have difficulty in retaining competent international bureaucrats in the long run.

To validate the theoretical intuitions, I compare how the two GATT/WTO DGs, Eric Wyndham White and Supachai Panitchpakdi, mediate multilateral trade negotiations under different levels of transparency. I focus on the GATT/WTO Secretariat among many other international bureaucrats because the GATT/WTO is one international organization that provides a negotiation forum on a regular basis. This means DGs have been repeatedly expected to mediate delegates' conflict of interests. Such setting provides an opportunity to test whether transparency indeed constrains mediation by international bureaucrats.

My findings provide the following three insights. First, I delineate how IOs respond to states' choice of institutional design. States design international institutions to advance their interest (Koremenos et al., 2001), but IOs in response adapt to that design choice. The latter arrow, how IOs affect states' choice of institutional design, has often been neglected.<sup>2</sup> I explain how international bureaucrats adapt to states' design choice by delineating a series of rational equilibria that results from constant interactions between states and IOs as a system. What I eventually show is the unintended costs generated by states that adopt transparency to enhance democratic accountability to their people. Second, I theorize how international bureaucrats as individuals shape negotiation outcomes. Previous literature (Urpelainen, 2012; Fang and Stone, 2012) often treats international bureaucrats as a group. Yet analyzing them as a group prevents incorporating self-centered preference of international bureaucrats, I explain

<sup>2.</sup> Johnson and Urpelainen (2014) and Johnson (2014) are exceptions, but the two studies look at how the technical expertise of international bureaucrats empowers them to design *new IOs*. I on the other hand look at how institutional design by states affect how international bureaucrats behave in *existing IOs*.

why and how transparency might change the behavior of international bureaucrats to a greater extent during certain stages of their career. Third, my findings call for the need for selective transparency in IOs. Transparency on compliance might promote international cooperation (Keohane, 1984), but transparency on negotiation procedures might deteriorate international cooperation by preventing a mediator to exert effort in negotiations.

The rest of the article is organized as follows. In the next section, I explain why and how transparency affects behavior of international bureaucrats. I then describe what empowers international bureaucrats as a mediator, and delineate why transparency might be fatal for their mediation activities. After presenting the set-up of the formal model, I derive the theoretical equilibria and empirical predictions. The following section tests the empirical predictions by comparing the leadership of the GATT and the relatively more transparent WTO. The last section discusses the broader implications.

#### 4.1 Transparency in International Organizations

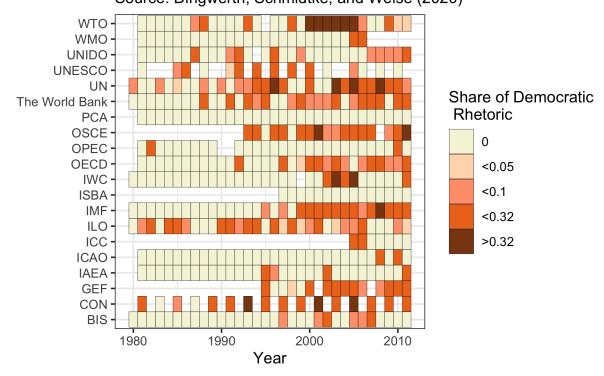
IOs in recent years have become more transparent. Information about the compliance of member states and meeting records are often publicly available. As Figure 4.1 shows, this pattern is observed across issue areas and regions. The increased transparency reflects an intent on the part of IOs to legitimize their authority through democratic procedures (Dingwerth et al., 2020). Their legitimacy through democratic procedures help member states to be more accountable to their citizens.

The increased transparency is not an exception to the WTO. Compared to negotiations in the GATT, negotiations in the WTO has adopted a negotiation setting that is relatively more transparent. One example is less reliance on mini-ministerial meetings and informal meetings at the Green Room. The Green Room refers to a Director General's conference room where informal, small-sized negotiations are held. Although negotiations at the Green Room has helped consensus-building necessary for concluding negotiations, this practice has

been criticized to favor representation from high-income member states (Jones, 2009).

Figure 4.1: Growing transparency in IOs

# Growing Democratic Rhetoric in IOs, 1980-2011 Source: Dingwerth, Schmidtke, and Weise (2020)



Notes: The x-axis is the year, and the y-axis is the list of IOs, and each square represents the degree of an IO in a specific year emphasizing democratic rhetoric such as transparency, openness, accountability in its annual report. The fact that the squares are filled with darker colors in recent years provides evidence that IOs in general have become more transparent.

Existing scholarship warns trade-offs of transparency. One form of trade-off is more frequent breakdowns in negotiations due to increased monitoring from the public. Transparent bargaining leads member states to take more uncompromising positions. In this way, they can signal their public that they cater to their interest (Stasavage, 2004). When domestic bureaucrats in charge of negotiation care about their reputation, for instance, to run for office, the domestic bureaucrats take an even more uncompromising stance, and thus the negotiation is more likely to reach a deadlock. In the realm of investor-state dispute settlements, transparency harms the longevity of investment projects by disabling governments

to compromise with an investor (Hafner-Burton et al., 2016). Fearing the electoral penalty from the public, domestic bureaucrats become more stubborn under transparency.

The second form of the trade-off is the disclosure dilemma that member states face (Carnegie and Carson, 2019). Unless there is proper intelligence agency protection, transparency deters member states to reveal a violation of international treaties of other member states. Fearing revelation of their sources and methods of intelligence, member states end up not reporting the violation of other member states.

Compared to the trade-offs that member states face under transparency, we do not know the trade-offs that international bureaucrats encounter under transparency. International bureaucrats join negotiations as a mediator, and various historical accounts describe their significant role in concluding negotiations (Odell, 2004; Buzan, 1981). Successful mediators gather information and devise tactics that break an impasse in negotiations. As for the examples specific to the GATT/WTO, Peter Sutherland, a former Director General (DG) of the GATT/WTO, threatened Geneva ambassadors that he would call their bosses in capital if they did not make more concessions.(Odell, 2004, p.17) Scholars find that not only DG, but also middle-ranking international bureaucrats do influence decision makings in the GATT/WTO. (Trondal et al., 2013; Xu and Weller, 2004, 2008; Jawara and Kwa, 2004) For instance, Julio A. Lacarte Muró, a former chairman of the WTO Appellate Body, worked to conclude deals by drafting short paragraphs on outstanding issues and pressured member states to support his proposal (Odell, 2004, p.17). If an international bureaucrat as a mediator can steer negotiations, a mediator's preference under transparency should also affect the negotiation outcome.

The definition of transparency used in this paper is open negotiation environment that requires international bureaucrats to mediate under scrutiny of all member states. In multilateral IOs, not all member states might be guaranteed with equal opportunities to participate in all negotiations. When transparency is low, some member states are not invited

to important negotiations. The excluded member states would then end up not knowing about the existence of these confidential meetings. Even if they know the existence of those meetings, they cannot discern the degree to which international bureaucrats mediate the confidential negotiations. On the other hand, when transparency is high, all the member states share knowledge on how international bureaucrats mediate a particular negotiation. The intuition of this paper is that this shared knowledge affects how the member states perceive international bureaucrats, and ultimately affects the way international bureaucrats behave.

#### 4.2 International Bureaucrats as Mediators

Perceived impartiality allows international bureaucrats to exercise informal power. The informal power allows international bureaucrats to successfully mediate the interest of member states (Moravcsik, 1999). When seen biased, member states might delegate them less authorities (Urpelainen, 2012). Even if member states believe in the high competence of international bureaucrats, they would limit international bureaucrats' autonomy if they perceive the consequence of tolerating the bias is detrimental.<sup>3</sup>

International bureaucrats thus want to be seen impartial. As an example, the GATT/WTO Secretariat official named Cheadu Osakwe describes perceived impartiality as "if we lose it we lose everything— we take it very seriously" (Jawara and Kwa, 2004, p.206). In the following, an anonymous WTO Secretariat official responds to the question of what if the Secretariat is seen as biased.

That is it! Then you are out, you can't play your role. They come to you because they trust you. If they don't trust you, or if they feel that you are more

<sup>3.</sup> There are two exceptions to states preferring international bureaucrats who appear impartial. International bureaucrats' bias is welcomed when there is a division in domestic politics. A domestic government is more likely to be persuaded by an international bureaucrat when its domestic expert has diverging preference (Fang and Stone, 2012). Their bias is also appreciated by member states when persuading a negotiating partner of different preferences. If two states are in bargaining and one state has an attractive outside option, a biased international bureaucrat can be optimal for the bargaining conclusion (Johns, 2007).

biased toward one part of the membership and not towards the other, it becomes difficult. (Trondal et al., 2013, p.100)

Existing literature on the bureaucrat bias does not see an international bureaucrat as a strategic actor. Most literature depicts international bureaucrats as actors who always exert their full effort (Ege, 2020). However, strategic international bureaucrats would sometimes exert minimal effort if doing so protects their appearance of impartiality. This is based on the calculation that shirking today is beneficial for acquiring trust from member states in the future. This pattern would be especially pronounced among international bureaucrats who are career-minded and plan to work at an IO for a long time. This paper, by paying attention to career-mindedness and preference for being seen as impartial, theorizes the impact of transparency on bureaucratic behavior as a mediator. In my model, an international bureaucrat strategically chooses the degree of effort in a way that maximizes career prospects.

The mechanism I establish best applies to IOs that create forums for negotiations such as the WTO. I expect the mechanism to be less applicable to IOs that are established to predominantly collect information, monitor compliance, or deliver aid. In an IO that provides a regular forum for negotiations, an international bureaucrat's effort can be conceptualized as an attempt to facilitate negotiations. The facilitation in my model invariably leads the bureaucrat to lean on one side over the other. Favoring one side over the other can be explicit, but it can be more nuanced such as agenda-setting. If the bureaucrat prioritizes one agenda over the other, this agenda-setting would favor member states who have a vested interest in the prioritized agenda.<sup>4</sup> The following interview with one WTO delegate provides a detailed picture of how an international bureaucrat facilitates negotiations.

<sup>4.</sup> Historically, agenda-setting by the GATT Secretariat greatly accelerated negotiation conclusions. Arthur Dunkel, the third GATT Director General (1980-1993), for example, created what is called "Dunkel Draft" that reduces hundreds of thousands of pages of diverse, often conflicting, proposals into a manageable single document of some 500 pages. The Dunkel draft became a "historic turning point in the [Uruguay Round] negotiations(WTO, 2005)."

Being chair of a committee at the WTO gave me the opportunity to see how the Secretariat functions, and how some group of countries would subtly get what they want into draft documents. It is done in a very clever, sophisticated and subtle manner ... If, for example, the majority of delegates don't agree with a negotiating text produced by a chairperson and thus demand changes, the chair could turn to the Secretariat for help, especially if he or she is not technically competent. Then clever lawyers of the Secretariat will then redraft the text in such a way that it would lean toward what the Quad (the United States, EU, Japan, Canada) wants, and importantly, it would also seem that consensus was reached. The chair would then be placed with the responsibility of presenting this skewed document to the membership without further consultations. (Jawara and Kwa, 2004, p.210)

To be precise, member states' trust in an international bureaucrat is based on the belief that an international bureaucrat is neutral: not between outcomes, but between states (Xu and Weller, 2004). Therefore, if member states succeed in distinguishing the observed agenda-setting from the intention of an international bureaucrat, the bureaucrat might not lose the reputation even after agenda-setting. Yet, the model is rooted in the intuition that distinguishing the two is extremely difficult. Member states cannot see through the true intention of an international bureaucrat, and they can only guess the neutrality of the bureaucrat from the observed performance of the bureaucrat. This means an international bureaucrat who wants to be seen impartial would have incentives to manipulate its behavior.<sup>5</sup>

<sup>5.</sup> When member states have a prior that an international bureaucrat is not neutral, the aggressive agenda-setting would further compromise the international bureaucrat's perceived impartiality. For example, developing country delegates in the WTO tend to attribute the Secretariat's refusal to share documents (an attempt to preserve secrecy) to its bias in favor of developed countries. One former developing country delegate says "You get assistance with general administrative issues, etc., but I never felt the staff (the Secretariat) worked in my favour. I do not believe the staff are dishonest. I am aware, however, that there is a difference in ideology between the majority of the staff and the majority of developing country delegates. (Jawara and Kwa, 2004, p.208)"

#### 4.3 Model

#### Setup

In this section, I construct a two-player model between a mediator (M) and member states as a whole (S). There are two types of mediators in the model: high type  $(M_H)$  with probability  $\pi$   $(Pr(M_H) = \pi)$  and low type  $(M_L)$  with probability  $1 - \pi$   $(Pr(M_L) = 1 - \pi)$ .  $M_H$  is a mediator with high competence who can effectively persuade a group of member states to close a deal. On the other hand,  $M_L$  is a mediator with low competence. A competent mediator  $(M_H)$  increases the likelihood of a negotiation conclusion. Member states as a whole want to conclude a negotiation and want to hire  $M_H$  over  $M_L$ . S does not want to hire  $M_L$ , and if failed to do so, S wants  $M_L$  to conduct minimal tasks during a negotiation.

A mediator's type determines the likelihood of a negotiation conclusion. Here I define successful mediation as the one that leads to the closure of a deal. The  $M_H$ 's likelihood of successful mediation is  $p^H$ , and the  $M_L$ 's likelihood of successful mediation is  $p^L$ . Competence and effort together determine performance. If no effort is exerted upon a mediator (e=0), regardless of the type, the likelihood of negotiation conclusion is q, with the condition of  $0 \le q < p^L < p^H \le 1$ . Substantially, q can be thought of as the probability of closure of a deal with minimally passive mediation or closure of a deal without any mediator involvement.

I model M as a career-minded international bureaucrat who behaves in a way that maximizes career interest. Transparency is an opportunity for M to demonstrate its own competence. Member states and a head of an IO can better observe M's performance under transparency and thus can better reward M if negotiation is concluded. For a high ranking international bureaucrat such as the WTO Director-General, transparency is an opportunity to receive greater external recognition. In this model, M exerting effort (e = 1) under transparency leads to an additional gain of  $\delta$ . Substantially,  $\delta$  means the size of benefit

that M acquires from performing under transparency. It can be thought of as the degree of career-mindedness, as M with higher career-mindedness would gain more by demonstrating its competence its boss or leaving a legacy from concluding a negotiation.

When deciding whether to exert effort, M considers the costs from exerting effort (e = 1) under transparency. Exerting effort under transparency accompanies bias (b), and this damages M's reputation of impartiality.<sup>6</sup> If M exerts effort (e = 1) under transparency, M yields  $p^H(C + \delta) - b$ . The benefit of concluding a negotiation is C, and this means M earns utilities by achieving both policy goals (C) and individual career goals ( $\delta$ ) (Copelovitch, 2010). If M under transparency does not exert effort (e = 0) and chooses to remain appear impartial, M earns  $q(C + \delta)$ .

Member states (S) are the entire members of an IO. For the simplicity of the model, S is the member states as a whole. What S decides is whether to make the negotiation procedure transparent (T) or not transparent (N) to the public, the media, and civil society groups. This decision would be determined by the IO's voting rule. If the negotiation process is transparent, S earns the benefit of enhancing democratic accountability (d). With d, member states can signal that they are accountable to their citizens (Stasavage, 2004). The democratic accountability is the benefit derived from the procedural transparency, so the size of d is independent from the negotiation outcome.

Modeling member states as a single-player conceptually distinguish state-level dynamics from bureaucrat-level dynamics. In reality, these two simultaneously shape the observed performance of international bureaucrats. The first mechanism originates from strategic interactions among member states. A group of member states might want to limit the autonomy of an international bureaucrat to prevent other member states from capturing international bureaucrats (Urpelainen, 2012). The second mechanism is driven by an international bureaucrat's self-interest. Even if member states unanimously agree to delegate

<sup>6.</sup> For simplicity, the following model assumes that member states evaluate neutrality of an international bureaucrat solely form the observed outcome.

more authorities to international bureaucrats, international bureaucrats themselves might voluntarily remain passive to secure the reputation of impartiality. By modeling member states as a single player (S), I can disentangle the second dynamic from the first dynamic.

I assume that the member states as a whole (S) wants to conclude a negotiation, and wants a deal that maximizes its total welfare.<sup>7</sup> I solve this game by Bayesian Nash Equilibrium (BNE). Below I illustrate the complete sequence of this game. Figure 4.2 visualizes this game with the payoff of each player written at the end of each node. For each duplet that lists the two players' payoffs, the first component is M's payoff, and the second component is S's payoff.

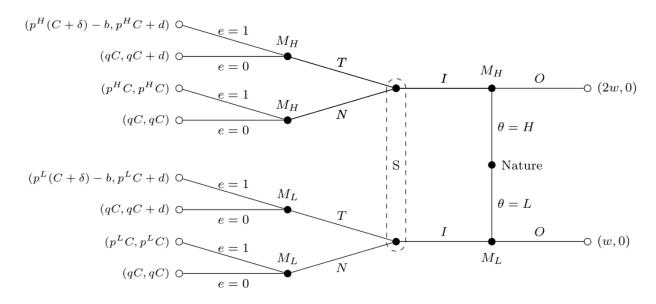
- 1. A mediator(M) decides whether to work at (I meaning "in") or not work at (O meaning "out") an IO. If M decides to not work at an IO (O), the game ends. In this case, M earns the average market wage (either 2w or w depending on the mediator's type) and S earns nothing.
- 2. If M decides to work at an IO (I), S chooses either transparent(T) or not transparent (N) negotiation environment.
- 3. After observing the decision of S, M decides whether to exert effort (e = 1) or not (e = 0).
- 4. Negotiation outcome is realized, and the payoffs of M and S are realized.

#### Results

By backward induction, I first examine the condition in which M exerts effort (e = 1) at the last stage. The ideal outcome for S at this stage is M actively mediating a negotiation

<sup>7.</sup> Member states may prefer the shirking of an international bureaucrat when they do not want to conclude a negotiation. In the case of the GATT/WTO, this is the instance in which member states are satisfied with the status quo and block the active mediation (Xu and Weller, 2004). My model does not address this case, and assumes that member states as a whole prefer trade liberalization over the status quo.

Figure 4.2: Game tree



(e=1) only when M is high type.<sup>8</sup> It turns out that transparency discourages  $M_L$  from actively mediating when the size of bias (b) necessary to conclude a negotiation is neither too high nor low. The size of bias (b) needs to be bigger than the added benefit of  $M_L$  choosing e=1 but needs to be smaller than the added benefit of  $M_H$  choosing e=1. In other words,  $p^L\delta + (p^L - q)C < b < p^H\delta + (p^H - q)C$  (hereinafter "the moderate bias condition"). If this condition is fulfilled, only  $M_H$  under transparency mediates actively (e=1). Based on the moderate bias condition, I introduce the following three equilibria of which transparency (T) is chosen by member states (S).

#### A. Equilibria of efficient selection

Member states as a whole (S) ideally wants only  $M_H$  to mediate actively (e = 1), and in a long run, wants only  $M_H$  to work at an IO. The best outcome for S is  $M_H$  opting in (I) and  $M_L$  opting out (O) at the first stage. Member states can efficiently select international bureaucrats while maintaining transparency, conditional on the relative size of the bias (b)

<sup>8.</sup> S does not want a low type M ( $M_L$ ) to exert effort. By  $M_L$  exerting effort, S cannot use transparency as an institutional feature to filter out a competent international bureaucrat.

and the average market wage (w). A big bias necessary to conclude negotiation under transparency (high b) discourages  $M_H$  from working at an IO by lowering the benefit from mediating actively (e = 1) under transparency. Under this equilibrium, w has to be bigger than qC, M's payoff when choosing not to exert effort (e = 0). The condition of w > qC leads  $M_L$  to not work at an IO at the first stage. Yet w must be smaller than  $\frac{p^H(C+\delta)-b}{2}$ , the benefit that  $M_H$  yields by exerting effort (e = 1). If  $w > \frac{p^H(C+\delta)-b}{2}$ ,  $M_H$  has an incentive to not work at an IO as well.

Though not ideal as the above equilibrium, member states (S) can partially achieve efficient selection despite transparency under less restrictive conditions.<sup>10</sup> That is, in equilibrium,  $M_H$  would choose to work at an IO, and  $M_L$  chooses not to work at an IO with the probability  $z = \frac{d\pi}{(1-\pi)((p^L-q)C-d)}$ . In response to the M's strategy, S in equilibrium chooses transparency (T) with the equilibrium probability  $x = \frac{p^LC-w}{(p^L-q)C}$  and chooses confidential negotiation setting (N) with the equilibrium probability 1-x.

The equilibrium of partially efficient selection depends on the relative size of the democratic accountability (d) and the average market wage (w). Notice that  $M_L$ 's likelihood of working at an IO increases with the increase in d. This is because when S faces high demands of democratic accountability (high d), S would choose transparency even if doing so invites  $M_L$  with higher probability. A higher average market wage (w) decreases the equilibrium probability of S choosing transparency. High w incentives  $M_L$  to not work at an IO, and knowing this, S no longer needs transparency a selection device.

#### B. Equilibria of Underperformance

<sup>9.</sup> Full specification of the efficient selection equilibrium is as follows:  $S_M(H) = I\&e = 1$ ,  $S_M(L) = O\&e = 0$ ,  $\mu_H(I) = 1$ ,  $\mu_H(O) = 0$ ,  $S_S(I) = T$ ,  $qC < w < \frac{p^H(C+\delta)-b}{2}$  under "the moderate bias condition" of  $p^L\delta + (p^L - q)C < b < p^H\delta + (p^H - q)C$ .

<sup>10.</sup> Full specification of the partially efficient selection equilibrium is as follows:  $S_M(H) = I\&e = 1$ ,  $S_M(L) = I\&e = 0$  with probability  $z = \frac{d\pi}{(1-\pi)((p^L-q)C-d)}$ ,  $S_M(L) = O$  with probability 1-z,  $\mu_H(I) = \frac{(p^L-q)C-d}{(p^L-q)C}$ ,  $\mu_H(O) = 0$ ,  $S_S(I) = T$  with probability  $x = \frac{p^LC-w}{(p^L-q)C}$ ,  $S_S(I) = N$  with probability 1-x under "the moderate bias condition" of  $p^L\delta + (p^L-q)C < b < p^H\delta + (p^H-q)C$ .

Under certain conditions, international bureaucrats strategically choose to underperform. I delineate two types of such equilibria: underperformance from  $M_H$ 's passive mediation (hereinafter "underperformance from no effort"), and underperformance from  $M_H$  not working at an IO ("underperformance from no entry").

The first underperformance equilibrium is "underperformance from no effort," the case in which both types of M choose to work at an IO, but both types choose not to perform passively  $(e = 0)^{11}$ . This is a pessimistic equilibrium in which international bureaucrats regardless of the degree of competence mediate passively under transparency. Under this equilibrium, the size of b has to be sufficiently large for  $M_H$  to not exert effort (e = 0), meaning  $b > p^H \delta + (p^H - q)C$ .

Note that S's decision to adopt transparency as an institutional feature depends on the career-mindedness ( $\delta$ ) and the net benefit from  $M_H$ 's effort  $((p^H - q)C)$ . The relatively small career-mindedness ( $\delta$ ) and small net benefit from  $M_H$ 's effort  $((p^H - q)C)$  would amplify the equilibrium of "underperformance from no effort." Moreover, this equilibrium requires relatively low outside wage  $(w < \frac{qc}{2})$ . The current threshold  $(\frac{qc}{2})$  would further go down when  $M_H$  has even more attractive outside option over  $M_L$ .

The second underperformance equilibrium is "underperformance from no entry," the case in which only low-type mediator  $(M_L)$  remains at an IO, but high-type mediator  $(M_H)$  who would have otherwise mediated actively ex-ante chooses not to work at an IO.<sup>12</sup> This is an additional pessimistic equilibrium; only incompetent international bureaucrats would want to remain at an IO. Under this equilibrium, an IO as a consequence would have difficulty in recruiting and retaining competent international bureaucrats.

<sup>11.</sup> Full specification of the equilibrium of "underperformance from no effort" is as follows:  $S_M(H) = S_M(L) = I\&e = 0$ ,  $\mu_H(I) = \pi$ , unrestricted  $\mu_H(O)$ ,  $S_S(I) = T$  when  $\pi \le \frac{d - (p^L - q)C}{(p^H - p^L)C}$  and  $w < \frac{qc}{2}$ ,  $S_S(I) = N$  when  $\pi > \frac{(d - (p^L - q)C)}{(p^H - p^L)C}$  and  $w < p^LC$  under "the upper bias condition" of  $b > p^H\delta + (p^H - q)C$ .

<sup>12.</sup> Full specification of the equilibrium of "underperforamnce from no entry" is as follows:  $S_M(H) = O\&e=1, S_M(L) = I\&e=0, \mu_H(I)=0, \mu_H(O)=1, S_S(I)=T, d>(p^L-q)C, \frac{p^H(C+\delta)-b}{2} < w < qc$  under "the moderate bias condition" of  $p^L\delta+(p^L-q)C < b < p^H\delta+(p^H-q)C$ .

The size of bias necessary to conclude a negotiation (b) in comparison to the outside wage (w) is what drives the decision of a competent international bureaucrat  $(M_H)$ . If the bias is bigger than the net benefit of  $M_H$  working at an IO over an outside option  $(b > p^H(C + \delta) - 2w)$ ,  $M_H$  chooses not to work at an IO. On the other hand, S has an incentive to maintain transparency only when the benefit from democratic accountability (d) is bigger than the net benefit of  $M_L$ 's active mediation  $(d > (p^L - q)C)$ . If  $M_L$ 's active mediation is not effective at all  $(p^L C = qC)$ , S would always choose transparency.

#### Comparative Statics

I visualize the above-mentioned equilibria and derive the lemmas for empirical validations. Figure 4.3 delineates the costs of transparency by visualizing the relationship between the bias (b) and the career-mindedness  $(\delta)$ . Transparency can deter  $M_L$  from entering an IO. At the same time, transparency as an institutional feature changes the behavior of international bureaucrats in the following two ways.

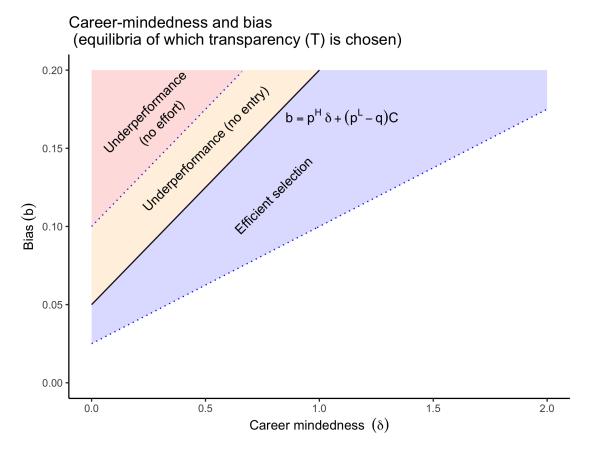
First,  $M_H$  in equilibrium no longer exerts effort as a mediator (the region colored in red in Figure 4.3). When the size of bias necessary to conclude a negotiation is sufficiently high, a mediator with low career-mindedness would choose to not exert effort.

**Lemma 4.1** (Passive mediation). A career-minded mediator under transparency does not exert effort if the size of bias necessary to conclude a negotiation is sufficiently big.

Second,  $M_H$  in equilibrium does not work at an IO (the region colored in orange in Figure 4.3). Fearing the loss of the appearance of impartiality,  $M_H$  is deterred to work at an IO. By adopting transparency, an IO in return becomes less attractive as a negotiating forum.

Lemma 4.2 (Inefficient selection). A career-minded mediator under transparency does not work at an IO if the size of bias necessary to conclude a negotiation is sufficiently big.

Figure 4.3: Relationship between bias and career mindedness under transparency



Notes:  $C=1, p^H=0.15, p^L=0.075, q=0.05,$  outside wage(w)=0.05. The range between two blue dotted lines originates from "the moderate bias condition" of  $p^L\delta+(p^L-q)C < b < p^H\delta+(p^H-q)C$ .

### 4.4 Comparative Case Study

In this section, I compare and contrast degrees of transparency in different periods of the GATT/WTO negotiations that affected the behavior of two Director Generals (DGs), Eric Wyndham White (1948-1968), and Supachai Panitchpakdi (2002-2005). This comparative case study provides suggestive evidence that increased transparency discourages the DG from actively mediating conflicts of interest. Following the comparative study, I provide interview evidence that this impact of transparency extends to international bureaucrats with higher  $\delta$ , namely middle-ranking international bureaucrats.

Following the trend of many other IOs, the GATT/WTO has become more transparent

over time (Dingwerth et al., 2020). The WTO has become more open and fragmented in the organization. During the GATT, a small number of developed countries made deals behind 'closed door.' In comparison to the GATT, the WTO is more diverse in its membership, and the performance of the WTO Secretariat is closely watched by the member states and the society as a whole. (Trondal et al., 2013, p.29) As Xu and Weller (2004) point out, the WTO Secretariat no longer cannot go back to the previous anonymity and has to "adapt to the greater visibility" (p.252).

Trade negotiations are usually confidential, but the GATT negotiations were particularly confidential. During the GATT negotiations, countries had unequal information on when and what kind of meetings were going to be held. One negotiation practice that highlights this confidentiality is the Green Room. A small subset of member states gather at the Green Room under the leadership of DG. DG exercises significant discretion during the Green Room meetings. DG decides the meeting participants and sets agendas for each meeting. The agendas include sensitive issues that could not be coordinated in previous meetings (Jones, 2009).<sup>13</sup> One delegate from uninvited member states complained, 'You are representing a country, and it's humiliating and ridiculous to be hanging around the corridor (of the Green Room) ... Who gave legitimacy to this meeting? ... It was not discussed at the Committee of the Whole' (Jawara and Kwa, 2004, p.105).

The Green Room meetings are later heavily criticized by developing countries and non-governmental organizations. They criticized the Green Room practice as "undemocratic," "lack of inclusiveness," and "unfair" (Jones, 2009; Sharma, 2003). Reflecting these criticisms, DGs in the WTO have been discouraged from relying on the Green Room and have used other means to resolve deadlocks in negotiations such as public appeals.

<sup>13.</sup> Besides DG, members of the Secretariat also exercise discretion by sitting and drafting documents at the Green Room in final hours (Jawara and Kwa, 2004, p.107).

#### The Two DGs under Different Levels of Transparency

Eric Wyndham White is known for building up the legitimacy of the GATT. Initially as First Executive Secretary and later as the first DG, he contributed to turning the GATT a provisional agreement into a de facto international organization. As DG, he successfully mediated multilateral negotiations in the Kennedy Round. The agreement reached in the Kennedy Round in average led to 35 percent reduction in tariff levels of non-agricultural products, and this far exceeds any tariff reductions negotiated in the previous five GATT rounds (Riedel, 1977). The GATT contracting parties elected him as secretary of tariff negotiations, and he showed a "towering presence" during the negotiations (McKenzie (2012)'s interview with John Jackson, November 17 2004).

A series of archival evidence indicate that Eric Wyndham White aggressively mediated member states' interest by taking advantage of confidentiality. According to Jake Warren, a Canadian delegate with long experience in GATT negotiations, he "smoked them [the delegates] out in the small hours of the night" (McKenzie (2012)'s interview with Jake Warren, May 18 2005). Eric Wyndham White also frequently threatened the delegates to resign if they do not reach an agreement (The New York Times, 1964). The fact that his threat to resign worked and persuaded member states to reach an agreement implies that he had secured trust from the member states. With the credibility from member states, he "coaxed, cajoled, bashed together the heads of stubborn negotiators" (The New York Times, 1964).

This aggressive mediation would not have been possible if negotiation procedures were more transparent and the audience outside of a negotiation room could question his impartiality. In one declassified letter which Eric Wyndham White himself wrote to member states (White, 1955), he states how much he values confidentiality in negotiations:

I have the honour to inform you that I have recently been advised by the Greek Government that the content of its notification on Article XXVIII negotiations (document SECRET/23) were recently published by a periodical in Athens. ...

I am sure that all contracting parties will appreciate the gravity of this incident and the importance of preventing any recurrence in the future. ... It is the responsibility of any official to whom such documents are entrusted to ensure that the secret nature of their content is safeguarded, and in particular, that secret documents when not actually in the custody of the official concerned, shall be kept under lock. - MGT/19/55 (March 30, 1955)

Supachai Panitchpakdi, on the other hand, failed to actively mediate member states' conflict of interest in later years with higher demands on transparency. As a first DG from a developing country, Supachai Panitchpakdi himself organized a confidential, informal meeting at the Green Room on December 19-20, 2002. His decision was very unusual. The WTO, especially after the Seattle protest in 1999, had been bombarded with the complaints that all countries were not treated equally during the negotiations. While taking risks, Supachai Panitchpakdi convened a series of confidential meetings to resolve the stalemate on Trade-Related Aspects of Intellectual Property Rights (TRIPs) and public health. Specifically, he tried to persuade member states to support the US's narrow interpretation of the Doha mandate on TRIPs (Jawara and Kwa, 2004, p.231).

Unfortunately, the existence of the confidential meetings were later caught by a group of excluded member states and civil society groups. After hearing about the Green room meetings, they denounced Supachai Panitchpakdi as "undemocratic" and questioned his reputation of impartiality. After close observation of Supachai Panitchpakdi, Jawara and Kwa (2004) conclude that this was a big loss for him because he indeed cared about maintaining the appearance of impartiality:

In his first months as DG, he (Supachai Panitchpakdi) tried to find a balance between *appearing* to push the developed countries in areas where they did not want to give ground, and avoiding 'losing credibility' with them. In a meeting with NGOs in Geneva on 2 December 2002, he said, ...'I am trying to balance as much as I can without losing my credibility.' (Jawara and Kwa, 2004, p.232)

The example of Supachai Panitchpakdi is consistent with Lemma 4.1 in the formal model.

If Supachai Panitchpakdi knew that uninvited member states would later find out the existence of the Green Room meetings, he either would have cancelled the confidential meetings or would have chaired the confidential meetings in a passive manner. This example implies that transparency, an institutional design adopted by member states, constrains an international bureaucrat's incentives to mediate conflict of interest that invariably involves taking sides. Under the equilibrium in which transparency is chosen, it is rational for DG to step back from active mediation.

Admittedly, it is hard to attribute transparency to the only reason behind the failure of recent WTO negotiations. Besides recent Director Generals being constrained by transparency, other factors, such as diversified issue areas and membership, can equally explain recent negotiation deadlocks in the WTO. In that sense, comparing the levels of transparency and linking it to the negotiation outcomes does not reject alternative explanations. However, the comparative analysis indicates that transparency as an institutional design can limit what DGs can do as a mediator.

## Salience of the Two DGs

To additionally test Lemma 4.1, I plot the salience of Eric Wyndham White and Supachai Panitchpakdi over time. If transparency as an institutional design shapes the degree to which DGs mediate in international negotiations, their salience during their term as DGs should vary across periods of high and low transparency. As transparency was relatively low under Eric Wyndham White and high under Supachai Panitchpakdi, I expect relatively high salience of Eric Wyndham White, and low salience of Supachai Panitchpakdi during their terms as DGs. The underlying assumption here is that salience is a proxy of how influential the DGs are in mediating member states' conflicts of interests.<sup>14</sup>

<sup>14.</sup> The author acknowledges that there can be ways other than mediation in which DG can raise its salience. For example, DG may borrow other venues such as the Organisation for Economic Co-operation and Development (OECD) to publicly appeal the necessity to conclude the multilateral trade negotiations.

I focus on the within-variation of each figure, especially the changes in salience before and after one becomes DG. This is because salience at the individual level greatly varies depending on one's previous career background. Eric Wyndham White, for example, was a career bureaucrat in the British government before becoming the GATT Executive Secretary in 1948. On the other hand, Supachai Panitchpakdi was an elected politician in Thailand. Before starting his career as the WTO DG, Supachai already won public recognition through working as Deputy Minister of Finance (1986-1988), Presdient of Thai Military Bank (1988-1992), and Deputy Prime Minister of Thailand (1997-2000). Given these individual-level differences, I examine whether the two DGs gained higher or lower salience within their career.

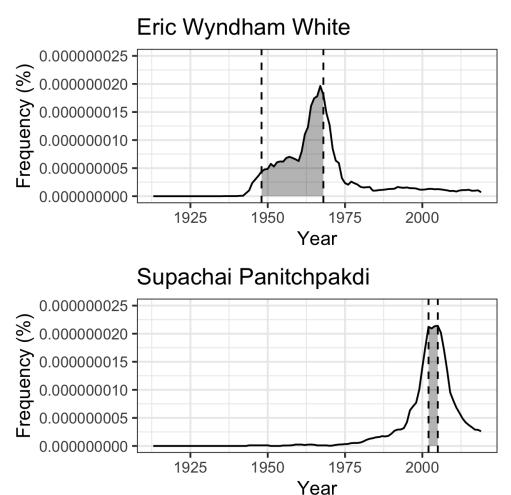
To measure salience, I use the Google Ngram Viewer. It is an online search engine that counts the frequencies of keywords in entire Google text corpora. All the scanned books available in Google Books constitute the text corpora. I conducted the Google Ngram analysis with the keywords "Eric Wyndham White"/"Eric Wyndham-White" and "Supachai Panitchpakdi" based on the text corpora between 1913 and 2019. Figure 4.4 visualizes the outcome of the analysis. The x-axis is the year, and the y-axis is the frequency of the keyword in percentage. The two dotted lines in Figure 4.4 represent each DG's term, and a grey area in between the lines highlights the salience as DG.

One noticeable pattern from Figure 4.4 is that while working as DGs, Eric Wyndham White's salience increases whereas Supachai Panitchpakdi's salience does not. In Eric Wyndham White's case, compared to his early years, more books and documents refer to his name during his term. On the other hand, the salience of Supachai Panitchpakdi remains constant during his term. In the appendix, I extend the Google Ngram analysis to all nine DGs in GATT/WTO (Figure C2). From the extension, I find that the salience conspicuously

The salience plot cannot disentangle this alternative explanation, but if this explanation holds, it would be more difficult to observe changes in the salience in favor of my theory. If DG can raise its salience through other venues, we would observe DG's high salience even under high transparency.

decreases in two most recent DGs, Pascal Lamy and Robert Azevedo. The increasing salience of Eric Wyndham White, stationary salience of Supachai Panitchpakdi, and the dcreasing salience of the two recent DGs together suggest that the increase in transparency over time may discourage an international bureaucrat to exert effort as a leader of an international organization.

Figure 4.4: Google Ngram salience of the two DGs



Notes: The two dotted lines represent each DG's term in GATT/WTO. Google's text corpora between 1913 and 2019 are used in the analysis.

#### Middle-Ranking International Bureaucrats Under Transparency

My model additionally predicts that transparency further inhibits an international bureaucrat's active mediation when the international bureaucrat is more career-minded ( $\delta$ ). This means middle-ranking international bureaucrats, in comparison to high-ranking ones like DG, would end up behaving more passively in the WTO period. This is because the middle-ranking bureaucrats have reasonable expectations to interact with member state delegates in a longer time horizon. Unlike DG with a fixed term limit, the bias would thus hurt the future career prospects of middle-ranking bureaucrats to a greater extent.<sup>15</sup> Vinod Rege, a retired senior officer of the GATT Secretariat, confirms that the long-term career prospects do drive the middle-ranking international bureaucrats to perform passive.

The high management would generally discourage publications by the Secretariat of any papers that express views that go against the negotiating positions of the major players. The officials themselves may be reluctant to do so, because they fear that this may affect their long-term career prospects. Further, the experience has shown, that if any official persists in pursuing approaches, that in their view are in the interests of countries with weaker bargaining positions, but not favoured by the major players, the latter build up pressures through complaints to the higher management and require them to shift to other assignments. (Jawara and Kwa, 2004, p.205-206)

If the middle-ranking international bureaucrats are aware of the penalty that Rege describes, then this would lead them to not fully exert their effort as a mediator. In the following, an anonymous WTO Secretariat explicates the gap between given informal discretion and the actual effort that the Secretariat puts in reality. The underperformance equilibria, the red region in Figure 4.3, is the theoretical account of this gap.

I think the Secretariat has a hugely unrecognised influence, because in almost everything that the WTO membership does, the Secretariat is generating the

<sup>15.</sup> One option for the middle-ranking bureaucrats in response to transparency would be to exert bias and then exit the IO, but at least this did not happen in the GATT/WTO. Many international bureaucrats who worked as the staff of the GATT continued to work at the WTO (Xu and Weller, 2004, p.5).

analysis, drafting the documents ... So to the extent that we introduce ideas, we shape existing ideas, so we have influence, but it is totally invisible because it goes out as a committee report or a member tables a paper or a dispute case report of a panel. My perspective is that the Secretariat has quite a bit of influence, but it is probably also *not fully using the influence*. (Trondal et al., 2013, p.99)

The implication here is that Secretariat officials know how to retain "a hugely unrecognized influence." If the international bureaucrats persist in pushing approaches using the given informal power, that would decrease their future informal power by losing trust from member states. Transparency in this setting would make the career-minded international bureaucrats even more cautious in exercising informal power.

#### 4.5 Discussion

To the question of why do we see the declining influence of international bureaucrats overtime in an IO like the WTO, existing studies look at the degree to which member states delegate formal authorities to international bureaucrats (Urpelainen, 2012; Elsig, 2011). If the member states as a whole are concerned about international bureaucrats being captured by a few powerful member states, member states might agree on limiting delegation to international bureaucrats. This explanation, however, depicts international bureaucrats as non-strategic actors who always exert their full effort to exercise their authority.

I argue that the declining influence of international bureaucrats can be explained by international bureaucrats' strategic choice under transparency. International bureaucrats, particularly those that intend to stay in an IO for a long time horizon, have incentives to maintain the reputation of impartiality. This is what enables them to have more informal power over member states in future negotiations. Therefore, international bureaucrats who are exposed to transparency in equilibrium would voluntarily curtail their effort as a mediator. This explains why we recently witness international bureaucrats performing their tasks with extreme caution and passivity (Nair, 2020).

Member states rationally choose the design of international institutions to advance their interest (Koremenos et al., 2001), but IOs also adapt to the states' design choice. Among various design features, I explicate how international bureaucrats as a mediator respond to the states' choice of transparency. My formal model predicts that competent international bureaucrats would respond to transparency either by not exerting their full effort or by choosing not to work at an IO. The former response leads to the declining influence of international bureaucrats, and the latter response leads to a lack of talented personnel within an IO. Member states might benefit from transparency by being more democratically accountable to their citizens, but this risks an IO's capacity to provide an effective forum for negotiations.

My argument calls for the necessity to distinguish so-called "procedural transparency" from "compliance transparency." Open information about the degree to which member states abide by international law might promote overall compliance (Keohane, 1984). In contrast, open information about how negotiations reach consensus can impede international cooperation by discouraging deeper consensus. This implication aligns with Stasavage (2004) and Hafner-Burton et al. (2016) in a sense that transparent negotiations can be fatal to the closure of a deal. Different from the studies in the past, however, I provide one mechanism of how procedural transparency demotivates international bureaucrats to mediate conflicts of interest.

The findings in this article caution against labelling international bureaucrats as zealots or slackers based on their observed performance. Two equally competent international bureaucrats of the same IO may end up exerting maximal and minimal effort depending on the institutional designs that vary over time. In May 2020, the WTO began a formal procedure for selecting a new DG. Since then, the WTO has hosted press conferences and aggregated member state preferences to find out a candidate with the best quality. My findings imply that transparency as an institutional feature can nullify the entire effort to select a high-

quality international bureaucrat. Even if a new DG is highly competent, transparency might constrain its performance as an active mediator. Under continued emphasis on transparency in negotiations, it is extremely difficult to come across another influential supranational entrepreneur like Jean Monnet.

#### CHAPTER 5

#### CONCLUSION

Bureaucrats are unelected but exert significant influence in crafting foreign policy. To the question of how unelected bureaucrats implement and design foreign policy, existing studies point out the importance of agency design, the ideal point of an agency, or the predetermined characteristic of bureaucrats who work at an agency. In this three-paper dissertation, I suggest a new framework focusing on the career incentives of bureaucrats. I argue that an institution that shapes the career incentives of bureaucrats are consequential in foreign policy. Depending on the institutional design, bureaucrats can exhibit greater accountability to elected officials, which can undermine efficient allocation of resources in the end. In foreign policymaking, such accountability to elected officials can endanger the political sustainability of globalization.

The three papers, while providing a new framework to how unelected bureaucrats shape foreign policy, have their own limitations. In the first paper "How Bureaucrats Represent Economic Interests: Partisan Control over Trade Adjustment Assistance," career bureaucrats in my theory should recognize the potential non-promotion threats of performing against the preference of the president's political party. I interviewed three bureaucrats at the Office of Trade Adjustment Assistance (OTAA) to validate this assumption, but the bureaucrats during the interview refused to answer the question that could potentially provide the direct evidence. The other theoretical limitation is the extrapolation of the conditional tenure effect. My estimates are local to the population of career bureaucrats who experienced tenure evaluations in their third year of service, Yet from the data, I confirmed the cases of bureaucrats exiting the agency long before their tenure evaluations. Therefore, the local average effect that I identify might not represent the average effect of the whole OTAA bureaucrats.

The empirical limitations of the first paper arise from the lack of data on the employment

contracts of individual bureaucrats, such as the pay scale or the start date of their tenure. The current research design produces conservative estimates in a sense that I compare the performance of bureaucrats whose length of service is greater or less than three years. In reality, however, some bureaucrats may have earned tenure slightly earlier than three years. With the detailed information about the employment contracts, I would be able to derive cleaner and potentially bigger estimates in favor of my theory. The same data would also allow me to identify the strategic behavior of the bureaucrats, such as whether untenured bureaucrats, anticipating the incoming president, perform in a way that is opposite to the preference of the incumbent president during its lame-duck period.

I equally acknowledge empirical limitations in the second paper "Certifying Threat: The Electoral Logic of Economic Relief." The paper quantifies the electoral backlash from traderelated compensation, but the research design builds upon an assumption. That is, voters who are not directly displaced by import competition should nevertheless hear about the compensation through an indirect channel such as local media. While I provide evidence of substantial coverage of Trade Adjustment Assistance in local media, I could not verify whether voters indeed learn about the compensation through the indirect channel. The uniqueness of the 2008 presidential election could be the other empirical limitation of this paper. I chose the 2008 election as it coincides with the peak of the China Shock, but one could argue that the finding based on the 2008 election might not hold in other elections.

The third paper "Who Wants to Work at a Transparent International Organization?" fails to rule out confounding variables that vary across time. My research design, by comparing how the two leaders of the same international organization mediate international negotiations under different levels of transparency, excludes issue-specific confounding variables. The outcomes of the international negotiations, however, can be explained with time-varying variables other than transparency, such as increased membership of the international organizations. To disentangle the impact of the confounding variables, detailed information about

the performance of the individual bureaucrats, such as their monthly meeting attendance records, would be extremely valuable. The other empirical limitation is that I could not test a theoretical implication that answers how bureaucrats with different career incentives perform differently under increased transparency. One untested prediction from my model is that increased transparency would have a bigger impact on international bureaucrats with longer career prospects, namely those in the low and middle ranks (the "career prospect hypothesis"). The data on individual international bureaucrats of different ranks, if available, would allow me to test this career prospect hypothesis.

The limitations of the dissertation open new avenues of research. One extension would be to investigate how institutions that govern incentives of bureaucrats shape different types of foreign policy other than trade policy. By way of illustration, the conditional tenure studied in the first paper can be used to explicate the performance of career bureaucrats who implement immigration policy and distribute foreign aid benefits. Similarly, transparency studied in the third paper can be useful to elucidate the performance of bureaucrats who work in finance- or energy-related international organizations. As bureaucrats also work in other branches of the government, another extension would be to examine bureaucrats' career incentives in other branches of the government, and how their incentives shape legislative and judicial activities. Looking into employment institutions of congressional staffers or administrative law judges, for example, can be worthwhile to understand the extent to which they respond to constituent requests. Finally, future research may explore employment institutions in countries other than the United States. By doing so, it would further clarify ways in which a variety of institutional designs generate differences in the way governments adapt to globalization.

Along with the new avenues of research, this dissertation raises a fundamental question about the meaning of bureaucratic control in democracies. Ideally, a society wants bureaucrats who serve public interests. In democracies, one way for bureaucrats to serve public interests would be to be responsive to politicians who are elected to represent the will of the people. Predominant literature in bureaucratic politics thus delves into the ways in which elected officials better control performance of bureaucrats. The findings from this dissertation, however, show that such bureaucratic control can undermine public interests, through the form of politicized compensation and deadlocks in international negotiations. This is because the public not only elects politicians, but is the recipient of various policies designed and implemented by bureaucrats. If what the public wants from bureaucrats is their neutral, apolitical delivery of policy benefits, bureaucrats would better serve public interests by being less responsive to the elected officials. As bureaucrats' responsiveness to elected officials can both improve and hurt public interests, bureaucratic control in democracies inherently suffers from a paradox.

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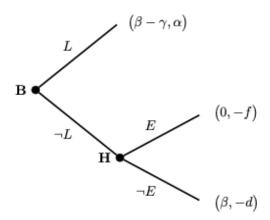
### **APPENDICES**

# A Appendix for "How Bureaucrats Represent Economic Interests: Partisan Control over Trade Adjustment Assistance"

### Formal Representation of the Theory

Consider a game between a TAA investigator (hereafter abbreviated as B for a "bureaucrat") and the head of the Department of Labor (H). B either can choose to behave loyally (L) or disloyally  $(\neg L)$   $(S_B = \{L, \neg L\})$ . If B chooses to behave disloyally  $(\neg L)$ , H either ends (E) or continues  $(\neg E)$  B's contract  $(S_H = \{E, \neg E\})$ .

Figure A1: The loyalty model



The utility function of B is as follows.

$$u_B(S_B, S_H) = \beta \mathbb{I}\{S_H = \neg E | S_B = L\} - \gamma \mathbb{I}\{S_B = L\}$$

B's benefit of retaining the job is  $\beta$ . B secures  $\beta$  when H continues the contract  $(\neg E)$ . B's cost of behaving loyally is  $\gamma$ . In the context of TAA petition certification, behaving loyally compromises professional norms.  $\gamma$  is high when the causal relationship between trade and displacement is straightforward. In this case, rejecting a petition when the rule says it should be approved accompanies risks. For instance, petitioners who are unsatisfied with the B's decision might later request administrative review or appeal for judicial review. If administrative review or judicial review overturns the original decision made by B, B's professional reputation would be damaged. On the other hand,  $\gamma$  is low when the causal relationship is murky and hard to verify. I set  $\gamma < \beta$  as the minimal condition in which B decides to work as a TAA investigator.

H's utility function is:

$$u_H(S_B, S_H) = \alpha \mathbb{I}\{S_B = L\} - f \mathbb{I}\{S_H = E\} - d \mathbb{I}\{S_H = \neg E\}$$

H's benefit from loyalty is  $\alpha$ . If  $\alpha$  is high, H has more incentive to acquire B's loyalty. H's cost of firing is f, and f is determined by B's appointment contract. Conditional tenure after three years of quality service implies that firing B before three years of service is relatively easy (low f). After three years, however, f would sharply increase. d is H's cost of tolerating disloyalty. This cost is generated if H does not lay off B after observing disloyalty.

Determinants of loyalty can be derived by solving the model through the Subgame Perfect Nash Equilibrium (SPNE). When f < d, a unique equilibrium (L, E) exists.<sup>2</sup> This means H finds it relatively easy to obtain B's loyalty when the cost of firing (f) is low enough. Until

<sup>1.</sup> Note that d in this model does not vary by seniority of B. In reality, the cost of disloyalty may vary by seniority of a bureaucrat. For example, a senior bureaucrat's disloyalty might be more damaging than an early-career bureaucrat's disloyalty. However, this is not what d represents in this model. d is incurred when TAA is implemented in a way that H does not want.

<sup>2.</sup> If f > d, then the unique SPNE is  $(\neg L, \neg E)$ . In this equilibrium, we do not observe B's loyalty because B is sure that H will not end the contract at the second stage.

# Summary Statistics and Descriptive Graphs

Table A1: Summary statistics of training sample (N = 42,084)

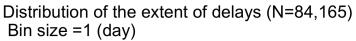
Statistic	N	St. Dev.	Mean	Min	Max
Republican president	42,081	0.50	0.56	0.00	1.00
Untenured	38,192	0.49	0.41	0.00	1.00
Certified(1=yes)	42,084	0.50	0.55	0	1
Investigation days	42,019	87.82	84.97	1.00	1,490.00
FP alignment	42,084	0.90	1.57	0.004	3.25
DOL budget (billion)	42,081	40.24	54.22	16.83	179.23
OTAA workload (10cases)	42,084	18.74	23.41	1	105
# of workers (100 wkrs)	41,945	3.39	1.04	0.00	200.00
Unemployment rate	42,084	1.63	6.32	3.50	10.80
Service sector (1=yes)	41,757	0.30	0.10	0.00	1.00
Company (Petitioner)	42,084	0.42	0.22	0	1
State (Petitioner)	42,084	0.31	0.11	0	1
Union (Petitioner)	42,084	0.27	0.08	0	1
Workers (Petitioner)	42,084	0.42	0.24	0	1

<sup>3.</sup> One may wonder why the government would then have an incentive to maintain the conditional tenure as an institution, knowing that a bureaucrat would behave disloyally right after tenured. One answer to this question is the government's expected benefit from controlling the quality of job applicants. The conditional tenure deters low-quality applicants to apply for the government position (Loh, 1994).

Table A2: Summary statistics of training plus holdout sample (N=84,165)

Statistic	N	St. Dev.	Mean	Min	Max
Republican president	84,162	0.50	0.56	0.00	1.00
Untenured	76,390	0.49	0.41	0.00	1.00
Certified(1=yes)	84,165	0.50	0.55	0	1
Investigation days	84,019	87.66	85.01	1.00	1,490.00
FP alignment	84,165	0.90	1.57	0.004	3.25
DOL budget (billion)	84,162	40.25	54.23	16.83	179.23
OTAA workload (10cases)	84,165	18.72	23.40	1	105
# of workers (100 wkrs)	83,903	3.32	1.04	0.00	200.00
Unemployment rate	84,165	1.63	6.32	3.50	10.80
Service sector (1=yes)	83,511	0.30	0.10	0.00	1.00
Company (Petitioner)	84,165	0.42	0.22	0	1
State (Petitioner)	84,165	0.31	0.11	0	1
Union (Petitioner)	84,165	0.27	0.08	0	1
Workers (Petitioner)	84,165	0.42	0.24	0	1

Figure A2: Distribution of bureaucratic delays



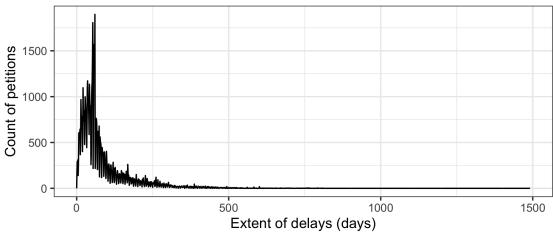
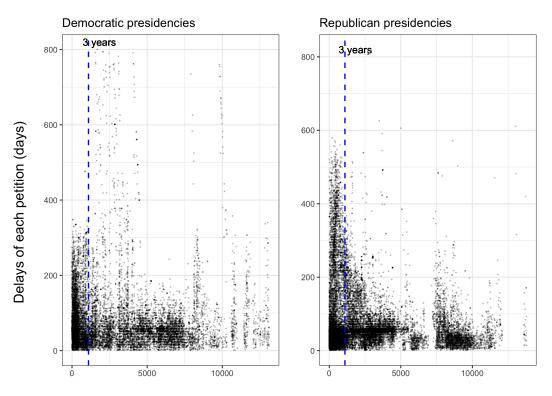


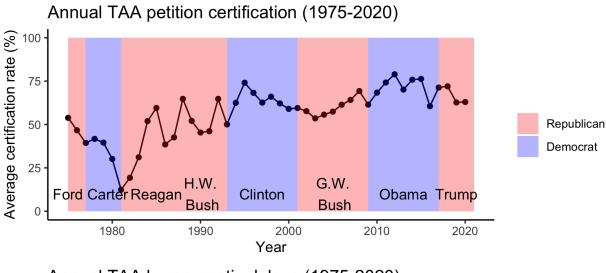
Figure A3: Visualizing bureaucratic delays by investigators' length of service

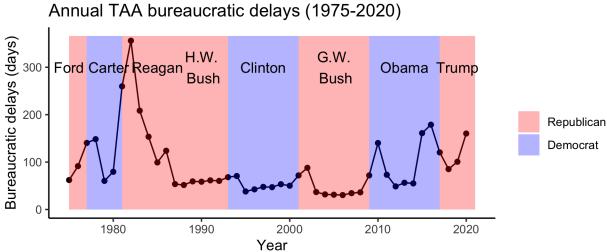


Investigators' length of service (days)

# TAA by Presidencies

Figure A4: Annual certification and investigation delay by presidency





# TAA in Congress

Table A3: Roll call votes on TAA

Bill	Congress	Date	Chamber	Summary	Result	Partisan vote
HJRes357	97	11/19/1981	Senate	Motion to table (kill) the Danforth (R-MO) amendment to add \$98.6 million for TAA	Agreed 49-46	Rep: 40-11 Dem: 8-35
SCRes9	97	4/2/1981	Senate	Amendment to restore \$400 million for TAA	Rejected 29-69	Rep: 4-48 Dem: 25-20
HR4515	99	6/6/1986	Senate	To make workers and firms that supply parts and services for the oil and gas industry eligible for TAA.	Agreed 55-40	Rep: 15-35 Dem: 40-5
S143	104	10/10/1995	Senate	To strike the provisions repealing training and employment services for TAA	Agreed 52-45	Rep: 7-45 Dem: 45-0
S1637	108	5/4/2004	Senate	To provide TAA for service workers	Rejected 54-45	Rep: 8-43 Dem: 45-2

Notes: TAA funding is often included in other bills, for instance in bills that are designed to ratify preferential trade agreements. From those bills, it is difficult to discern the partisan preference of TAA. The above is a list of "clean" TAA bills that are not mixed with other bills.

Table A4: List of senators who did not vote partisan

	HJRes357	SCRes9 Notes	HR4515	S143	S1637
Democrat & oppose TAA expansion	DeConcini (AZ), Chiles (FL), Stennis (MS), Exon (NE), Zorinsky (NE), Moynihan (NY), Hollings (SC), Proxmire (WI)	DeConcini (AZ), Bumpers (AR), Pryor (AZ), Hart (CO), Chiles (FL), Nunn (GA), Matsunaga (HI), Huddleston (KY), Johnston (LA), Long (LA), Tsongas (MA), Stennis (MS), Baucus (MT), Exon (NE), Zorinsky (NE), Cannon (NV), Proxmire (MI), Bentsen (TX), Hollings (SC), Boren (OK)	Cranston (CA), Exon (NE), Zorinsky NE), Hollings (SC), Proxmire (WI)	None	Conrad (ND), Miller (GA)
Republican & support TAA expansion	Weicker (CT), Roth (DE), Dole (KS), Kassebaum (KS), Mathias (MD), Durenberger (MS), Danforth (MO), Packwood (OR), Heinz (PA), Specter (PA), Chafee (RI),	Roth (DE), Mathias (MD), Heinz (PA), Specter (PA)	Denton (AL), Murkowski (AK), Stevens (AK), McClure (ID), Domenici (NM), D'Amato (NY), Andrews (ND), Laxalt (NV), Nickles (OK), Hatfield (OR), Heinz (PA), Specter (PA), Thurmond (SC) Abdnor (SD) Simpson (WY)	Abraham (MI), Bond (MO), Campbell (CO), D'Amato (NY), Roth (DE), Specter (PA) Thompson (TN)	Coleman (MN), Collins (ME) DeWine (OH), Dole (NC), Graham (SC), Smith (OR) Snowe (ME) Specter (PA)

### Survival Analysis

Table A5: Survival rate by certification rate in the first three years

	Survival rate under	Survival rate under
	the Democratic Party	the Republican Party
II: ala Cantification	32.61~%	27.59%
High Certification	(46)	(87)
Low Certification	25%	45.16%
Low Certification	(8)	(124)

Notes: a. Number inside the parenthesis is the total number of investigators in that category. b. For investigators who left before three years, their average certification rate is calculated based on their performance till they leave the OTAA. c. The threshold of high and low certification is the median certification rate (49.06%).

Survival rate by delays in the first three years

	Survival rate under	Survival rate under
	the Democratic Party	the Republican Party
Long Dolog	16.67%	42.11%
Long Delays	(18)	(114)
Short Dolors	38.89%	32.99%
Short Delays	(36)	(97)

Notes: a. Number inside the parenthesis is the total number of investigators in that category. b. For investigators who left before three years, their average delay is calculated based on their performance till they leave the OTAA. c. The threshold of long and short delays is the median delays (84.37 days).

Under Republican presidencies, investigators with low certification rate and long delays are positively associated with survival after three years. Under Democratic presidencies, investigators with high certification rate and short delays are positively associated with survival after three years.

# Alignment Between Labor and the Democratic Party

Factor-party alignment index (1978-2016)

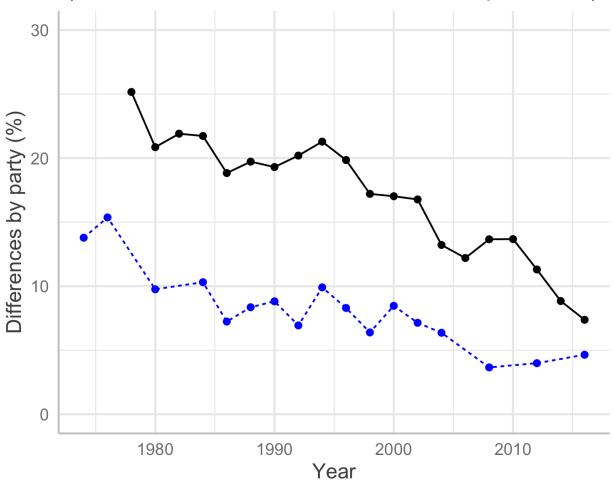
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Figure A5: Over-time trend of alignment

Source: Campaign Finance Institute Analysis of Federal Election Commission Data

Figure A6: Alternative index of alignment

# Alternative index of FP alignment (Pearson correlation coefficient: 0.85, p < 0.001)



Labor PACs contributions - Labor union membership

Notes: The dotted line in blue presents the yearly variation of party identification among labor union members. I calculate this index as subtracting the percentage of self-identified Republicans with labor union membership from the percentage of self-identified Democrats with labor union membership. This alternative index is highly correlated with the factor-party alignment index (the solid line in black). The Pearson correlation coefficient is 0.85~(p < 0.001).

# Regression Tables for Testing the Hypotheses

Table A6: Testing Partisan Certification (H1)

	DV: TAA Petition Certification (1=Certified)				
	Bivariate	+Controls	+Fixed Effects		
	(1)	(2)	(3)		
Republican	-0.44***	$-0.12^{***}$	-0.10**		
	(0.03)	(0.03)	(0.04)		
Untenured	-0.35***	$-0.26^{***}$	$-0.39^{***}$		
	(0.03)	(0.04)	(0.06)		
Republican $\times$ Untenured	0.06	$-0.10^{**}$	$-0.24^{***}$		
	(0.04)	(0.05)	(0.07)		
Controls	No	Yes	Yes		
Fixed Effects	No	No	Yes		
N	38,189	37,725	37,725		
Log Likelihood	$-25,\!832.84$	$-24,\!534.10$	$-22,\!645.95$		
AIC	51,673.68	49,096.20	46,113.90		

<sup>\*</sup>p < .1; \*\*p < .05; \*\*\*p < .01

Table A7: Testing Partisan Delays (H2)

	DV: Bureaucratic Delays (days)				
	Bivariate	+Controls	+Fixed Effects		
	(1)	(2)	(3)		
Republican	-9.09***	-18.12***	-13.40***		
	(1.19)	(1.20)	(1.30)		
Untenured	7.03***	-14.88***	-49.03***		
	(1.42)	(1.44)	(1.88)		
Republican $\times$ Untenured	35.35***	56.10***	92.60***		
	(1.86)	(1.81)	(2.15)		
Controls	No	Yes	Yes		
Fixed Effects	No	No	Yes		
N	38,124	37,660	37,660		
$\mathbb{R}^2$	0.03	0.23	0.39		
Adjusted R <sup>2</sup>	0.03	0.23	0.39		
Residual Std. Error	87.70	78.21	69.66		
F Statistic	442.67***	847.78***	58.79***		

p < .1; p < .05; p < .01

Table A8: Testing Party Divergence (H3) on certification

	DV: TAA Pe	etition Certifica	tion (1=Certified)
	Bivariate	+Controls	+Fixed Effects
	(1)	(2)	(3)
Republican	-0.24***	$-0.31^{***}$	0.02
	(0.05)	(0.06)	(0.07)
Untenured	-0.16***	-0.24***	-0.57****
	(0.05)	(0.06)	(0.08)
FP alignment(M)	$-0.11^*$	-0.26****	0.17**
- , ,	(0.06)	(0.06)	(0.08)
FP alignment(H)	$-0.27^{***}$	$-0.25^{***}$	0.20**
	(0.05)	(0.06)	(0.08)
Republican×Untenured	$0.13^{*}$	0.20**	$0.20^{*}$
-	(0.07)	(0.08)	(0.11)
Republican×FP alignment(M)	-0.34***	0.06	-0.26****
• ,	(0.07)	(0.08)	(0.09)
Republican $\times$ FP alignment(H)	-0.23****	0.19**	-0.16
· ,	(0.07)	(0.09)	(0.10)
Untenured $\times$ FP alignment(M)	0.18**	0.27***	$0.22^*$
G ( )	(0.09)	(0.09)	(0.11)
Untenured $\times$ FP alignment(H)	-0.83***	$-0.42^{***}$	0.09
	(0.08)	(0.09)	(0.13)
$Republican \times Untenured \times FP \ alignment(M)$	-0.13	-0.36****	-0.34**
· · · · · · · · · · · · · · · · · · ·	(0.11)	(0.11)	(0.14)
Republican $\times$ Untenured $\times$ FP alignment(H)	-0.49***	$-0.82^{***}$	$-0.85^{***}$
- ` ` ,	(0.11)	(0.12)	(0.15)
Controls	No	Yes	Yes
Fixed Effects	No	No	Yes
N	38,189	37,725	37,725
Log Likelihood	-24,978.86	$-24{,}333.66$	$-22{,}595.87$
AIC	49,981.72	48,711.31	46,029.74

<sup>\*</sup>p < .1; \*\*p < .05; \*\*\*p < .01

Notes: FP alignment(M) means medium alignment (the second tertile), and FP alignment(H) means high factor-political party alignment (the third tertile). The baseline is FP alignment(L), the low factor-political party alignment (the first tertile).

Table A9: Testing Party Divergence (H3) on delay

	DV: B	ureaucratic De	lays (days)
	Bivariate	+Controls	+Fixed Effects
	(1)	(2)	(3)
Republican	-68.92***	-57.09***	$-47.53^{***}$
	(1.70)	(1.84)	(2.03)
Untenured	-10.98***	$-10.19^{***}$	-22.46***
	(1.82)	(1.98)	(2.51)
FP alignment(M)	-63.92***	-46.30***	-40.25***
- , ,	(1.93)	(2.03)	(2.26)
FP alignment(H)	-60.98***	-47.97***	-38.29***
_	(1.71)	(2.00)	(2.48)
Republican×Untenured	11.47***	11.53***	6.34**
	(2.46)	(2.55)	(3.15)
$Republican \times FP \ alignment(M)$	78.30***	53.77***	52.15***
- , ,	(2.42)	(2.60)	(2.69)
Republican $\times$ FP alignment(H)	129.01***	100.80***	73.86***
- , ,	(2.53)	(2.86)	(3.04)
Untenured $\times$ FP alignment(M)	16.53***	10.97***	12.28***
	(2.93)	(2.96)	(3.38)
Untenured $\times$ FP alignment(H)	29.47***	8.97***	$-21.20^{***}$
-	(2.73)	(2.93)	(3.78)
$Republican \times Untenured \times FP \ alignment(M)$	-19.59***	-9.75***	9.04**
- ` ` ,	(3.72)	(3.73)	(4.29)
$Republican \times Untenured \times FP \ alignment(H)$	115.43***	126.68***	154.25***
- , ,	(3.78)	(3.83)	(4.40)
Controls	No	Yes	Yes
Fixed Effects	No	No	Yes
N	38,124	37,660	37,660
$\mathbb{R}^2$	0.36	0.38	0.47
Adjusted $R^2$	0.36	0.38	0.47
Residual Std. Error	71.56	69.89	65.01
F Statistic	1,920.63***	1,109.99***	79.40***

<sup>\*</sup>p < .1; \*\*p < .05; \*\*\*p < .01

Notes: FP alignment(M) means medium alignment (the second tertile), and FP alignment(H) means high factor-political party alignment (the third tertile). The baseline is FP alignment(L), the low factor-political party alignment (the first tertile).

# $Certification\ Models'\ Robustness\ to\ OLS\ Regression$

Table A10: Testing Partisan Certification (H1) using OLS regression

	DV: TAA Petition Certification (1=Certified)				
	Bivariate	+Controls	+Fixed Effects		
	(1)	(2)	(3)		
Republican	-0.10***	$-0.03^{***}$	$-0.02^{***}$		
	(0.01)	(0.01)	(0.01)		
Untenured	-0.08***	-0.06***	$-0.09^{***}$		
	(0.01)	(0.01)	(0.01)		
Republican $\times$ Untenured	0.01	-0.03**	-0.05***		
	(0.01)	(0.01)	(0.01)		
Controls	No	Yes	Yes		
Fixed Effects	No	No	Yes		
N	38,189	37,725	37,725		
$\mathbb{R}^2$	0.02	0.07	0.15		
Adjusted R <sup>2</sup>	0.02	0.07	0.14		
Residual Std. Error	0.49	0.48	0.46		
	(df = 38185)	$(\mathrm{df} = 37711)$	(df = 37314)		
F Statistic	203.19***	209.72***	16.09***		
	(df = 3; 38185)	(df = 13; 37711)	(df = 410; 37314)		

p < .1; p < .05; p < .01

Table A11: Testing Party Divergence (H3) on certification using OLS regression

	DV: TAA Petition Certification (1=Certified)			
	Bivariate	+Controls	+Fixed Effects	
	(1)	(2)	(3)	
Republican	-0.05***	$-0.07^{***}$	0.004	
	(0.01)	(0.01)	(0.01)	
Untenured	-0.04***	$-0.05^{***}$	$-0.12^{***}$	
	(0.01)	(0.01)	(0.02)	
FP alignment(M)	$-0.02^*$	-0.06***	$0.04^{**}$	
	(0.01)	(0.01)	(0.02)	
FP alignment(H)	-0.06***	-0.05***	0.04**	
	(0.01)	(0.01)	(0.02)	
Republican $\times$ Untenured	$0.03^{*}$	0.04**	$0.04^{*}$	
	(0.02)	(0.02)	(0.02)	
Republican $\times$ FP alignment(M)	-0.09***	0.01	$-0.06^{***}$	
	(0.02)	(0.02)	(0.02)	
Republican $\times$ FP alignment(H)	-0.06***	$0.04^{**}$	-0.03	
	(0.02)	(0.02)	(0.02)	
$Untenured \times FP \ alignment(M)$	0.04**	0.06***	0.04	
	(0.02)	(0.02)	(0.02)	
Untenured $\times$ FP alignment(H)	-0.21***	$-0.11^{***}$	0.004	
	(0.02)	(0.02)	(0.03)	
Repubican $\times$ Untenured $\times$ FP alignment(M)	-0.03	-0.08***	$-0.07^{**}$	
	(0.02)	(0.03)	(0.03)	
Repubican $\times$ Untenured $\times$ FP alignment(H)	-0.08***	$-0.16^{***}$	$-0.14^{***}$	
	(0.03)	(0.03)	(0.03)	
Controls	No	Yes	Yes	
Fixed Effects	No	No	Yes	
N	38,189	37,725	37,725	
$\mathbb{R}^2$	0.06	0.08	0.15	
Adjusted $R^2$	0.06	0.08	0.14	
Residual Std. Error	0.48	0.48	0.46	
	$(\mathrm{df} = 38177)$	$(\mathrm{df} = 37703)$	$(\mathrm{df} = 37306)$	
F Statistic	219.09***	149.77***	16.02***	
	$(\mathrm{df}=11;$	$(\mathrm{df}=21;$	$(\mathrm{df}=418;$	
	38177)	37703)	37306)	

<sup>\*</sup>p < .1; \*\*p < .05; \*\*\*p < .01

### Clustered Standard Errors by Industries

Although the allocation of TAA petitions to investigators is quasi-random, previous experience with industry may affect the petition allocation (Hyman, 2018, p.17). To address the possibility of an investigator being assigned to the petitions from the same industry, I cluster the standard errors by the North American Industry Classification System (NAICS) code at the level of three-digits. The OTAA before 2010 recorded the industry information using the Standard Industrial Classification (SIC) code, and I used the concordance table from the United States Census to convert the SIC code into the NAICS code. My dataset in total has 176 variations in the three-digit NAICS code, the top three industries with frequent petitions being Apparel Manufacturing (315), Oil and Gas Extraction (211), and Transportation Equipment Manufacturing (336). When running the regressions with clustered standard errors, I leverage a dataset that combines the training and holdout sample. Table A12 – A15 show that the findings are overall robust to the clustered standard errors by industries.

Table A12: Testing Partisan Certification (H1) with clustered SE

DV: TAA Petition Certification (1=Certified)		
	Full Model	+Clustered SE
	(1)	(2)
Republican $\times$ Untenured	-0.27***	$-0.27^{**}$
	(0.05)	(0.13)
N	75,474	75,474

p < .1; p < .05; p < .01

Table A13: Testing Partisan Delays (H2) with clustered SE

DV: Bureaucratic Delays (days)			
	Full Model	+Clustered SE	
	(1)	(2)	
Republican $\times$ Untenured	94.01***	94.01***	
N	(1.51) $75.329$	(12.19) $75.329$	

\*p < .1; \*\*p < .05; \*\*\*p < .01

Notes: Other variables are omitted from the regression table. See Table A1 for the full set of covariates.

Table A14: Testing Party Divergence (H3) on certification with clustered SE

DV: TAA Petition Certification (1=Certified)			
	Full Model	+Clustered SE	
	(1)	(2)	
Repubican $\times$ Untenured $\times$ FP alignment(M)	$-0.45^{***}$	$-0.45^{*}$	
	(0.10)	(0.26)	
Republican $\times$ Untenured $\times$ FP alignment(H)	-0.84***	-0.84***	
N	(0.11)	(0.18)	
IN	$75,\!474$	$75,\!474$	

p < .1; p < .05; p < .01

Notes: Other variables are omitted from the regression table. See Table A1 for the full set of covariates.

Table A15: Testing Party Divergence (H3) on delays with clustered SE

DV: Bureaucratic Delays (days)			
Full Model +Clustere			
	(1)	(2)	
Repubican $\times$ Untenured $\times$ FP alignment(M)	4.87	4.87	
	(3.03)	(6.10)	
Repubican $\times$ Untenured $\times$ FP alignment(H)	$154.67^{***}$	154.67***	
	(3.10)	(13.53)	
N	75,329	75,329	

<sup>\*</sup>p < .1; \*\*p < .05; \*\*\*p < .01

### Regressions with Six Month-fixed Effects

Unobservable characteristics related to the quality of petitions and the OTAA could bias the estimation of the conditional tenure effect upward. For example, Figure A4 shows that the average certification rate was particularly low and the investigations were noticeably slow during the Reagan Administration, and this might be attributed to the low quality of petitions submitted during that time. Another possibility is that there might be a hiring freeze in the OTAA during the Republican presidencies, burdening each bureaucrat with more petitions.

To address these concerns, I adopt the six-month fixed effects to control the time trends. I rank the petitions by the first date of the investigations and chunk them by 180 days.<sup>4</sup> As the fixed effects need a lot of data points, I use a dataset that combines the training and the testing set. Although the magnitudes decrease in the models with the six-month fixed effects, the conditional tenure mechanism is robust to the model specifications (Table A16 – A19).

Table A16: Testing Partisan Certification (H1) with six-month FE

DV: TAA Petition Certification (1=Certified)			
Full Model	+6M FE		
(1)	(2)		
$-0.27^{***}$	-0.18***		
(0.05)	(0.06)		
75,474	$75,\!474$		
	Full Model (1) -0.27*** (0.05)		

p < .1; p < .05; p < .05; p < .01

<sup>4.</sup> There are 91 groups in total, the first group ranging between April 4, 1975 and September 30, 1975 followed by the second group ranging between October 1, 1975 and March 28, 1976.

Table A17: Testing Partisan Delays (H2) with six-month FE

\*p < .1; \*\*p < .05; \*\*\*p < .01

Notes: Other variables are omitted from the regression table. See Table A1 for the full set of covariates.

Table A18: Testing Party Divergence (H3) on certification with six-month FE

DV: TAA Petition Certification (1=Certified)			
	Full Model	+6M FE	
	(1)	(2)	
Repubican $\times$ Untenured $\times$ FP alignment(M)	$-0.45^{***}$	-0.23**	
	(0.10)	(0.11)	
Repubican $\times$ Untenured $\times$ FP alignment(H)	$-0.84^{***}$ (0.11)	$-0.56^{***}$ $(0.15)$	
N	75,474	75,474	

<sup>\*</sup>p < .1; \*\*p < .05; \*\*\*p < .01

Notes: Other variables are omitted from the regression table. See Table A1 for the full set of covariates.

Table A19: Testing Party Divergence (H3) on delays with six-month FE

DV: Bureaucratic Delays (days)			
	Full Model	+6M FE	
	(1)	(2)	
Repubican:Untenured:FP alignment(M)	4.87	9.62***	
	(3.03)	(2.93)	
Repubican:Untenured:FP alignment(H)	154.67***	116.25***	
	(3.10)	(3.71)	
N	$75,\!329$	75,329	

<sup>\*</sup>p < .1; \*\*p < .05; \*\*\*p < .01

## Holdout Evaluation

In this section, I test the performance of the empirical models with the holdout sample. This process is to ensure that the results are driven by minimal overfitting. The holdout sample consists of 42,081 observations, and it is randomly halved from the entire dataset of 84,165 observations.

Table A20: Holdout evaluation of partisan certification

	H1 Full Model	H3 Full Model
	(1)	(2)
Republican	-0.06	-0.08
	(0.04)	(0.07)
Untenured	$-0.35^{***}$	$-0.47^{***}$
	(0.06)	(0.08)
FP alignment(M)		0.05
		(0.08)
FP alignment(H)		-0.02
		(0.08)
Republican $\times$ Untenured	$-0.30^{***}$	$0.21^{**}$
	(0.07)	(0.11)
Republican $\times$ FP alignment(M)		-0.13
		(0.09)
Republican $\times$ FP alignment(H)		0.04
		(0.10)
$Untenured \times FP \ alignment(M)$		0.28**
		(0.11)
Untenured $\times$ FP alignment(H)		-0.12
		(0.13)
Republican $\times$ Untenured $\times$ FP alignment(M)		-0.58***
		(0.14)
Republican $\times$ Untenured $\times$ FP alignment(H)		-0.85***
		(0.15)
N	37,749	37,749
Controls	Yes	Yes
Fixed Effects	Yes	Yes
Log Likelihood	$-22{,}719.92$	$-22,\!667.03$
AIC	$46,\!261.84$	$46,\!172.06$

<sup>\*</sup>p < .1; \*\*p < .05; \*\*\*p < .01

Table A21: Holdout evaluation of partisan delays

DV: Bureaucratic Delays (days)		
	H1 Full Model	H3 Full Model
	(1)	(2)
Republican	-11.52***	-44.62***
•	(1.29)	(2.03)
Untenured	-48.54***	$-23.62^{***}$
	(1.86)	(2.48)
FP alignment(M)	, ,	-38.30***
- , ,		(2.26)
FP alignment(H)		-31.13***
		(2.47)
Republican $\times$ Untenured	94.78***	11.68***
	(2.13)	(3.12)
Republican $\times$ FP alignment(M)		51.42***
• •		(2.68)
Republican $\times$ FP alignment(H)		71.66***
		(3.02)
Untenured $\times$ FP alignment(M)		15.83***
		(3.36)
Untenured $\times$ FP alignment(H)		-25.78***
		(3.80)
Repubican $\times$ Untenured $\times$ FP alignment(M)		-0.35
		(4.28)
Repubican $\times$ Untenured $\times$ FP alignment(H)		154.76***
		(4.38)
N	37,669	37,669
Controls	Yes	Yes
Fixed Effects	Yes	Yes
$\mathbb{R}^2$	0.40	0.48
Adjusted $R^2$	0.40	0.47
Residual Std. Error	68.85	64.29
F Statistic	61.00***	81.72***

p < .1; p < .05; p < .05; \*\*\*p < .01

# B Appendix for "Certifying Threat: The Electoral Logic of Economic Relief"

## Press Release of the TAA Decision

Figure B1: Department of Labor press release on TAA



### Formal Model Appendix

Given the incentives facing the politician in the first period, we study the consequences of economic relief on the beliefs and actions of the voter. To do so, we derive the explicit formulation of R(1, C), R(0, C), R(1, O), and R(0, O) in terms of exogenous parameters, using the joint probabilities from Tables B1 and B2.

Table B1: Joint probability of factory closing (F) and the economic relief (A) under the ideologically committed politician (I)'s strategy (0,1,1)

Factory Closed 
$$A=0$$
  $A=1$   $\pi_L(1-\theta_{E_L})$   $\pi_M(1-\theta_{E_M})+\pi_H(1-\theta_{E_H})$   $\pi_L\theta_{E_L}$   $\pi_M\theta_{E_M}+\pi_H\theta_{E_H}$ 

Table B2: Joint probability of factory closing (F) and the economic relief (A) under the opportunistic incumbent  $(\sim I)$ 's strategy (0,0,0)

Factory Closed 
$$\begin{array}{c|c} & Economic relief \\ A=0 & A=1 \\ \hline A=1$$

Recall that the ideologically committed politician (I) does not deviate in the middle state if:

$$\theta_{E_M} * ([R(1,C) - R(0,C)] + (1-\theta_{E_M}) * ([R(1,O) - R(0,O)] > \frac{\tau - \theta_{E_M}a}{\underline{v} - \theta_{E_M}(C-a) - \tau}$$

For simplification, if each state has an equal prior  $\pi_H = \pi_M = \pi_L$ , this reduces to :

$$\frac{(1-\bar{\gamma})(\theta_{E_L}^2 - \theta_{E_M}^2) - \theta_{E_M}\theta_{E_H}}{(1-\bar{\gamma})(\theta_{E_L} + \theta_{E_M})^2 + \theta_{E_H}(\theta_{E_L} + \theta_{E_M})} > \frac{\tau - \theta_{E_M}a}{\underline{v} - \theta_{E_M}(C - a) - \tau}$$
(B.1)

Equation B.1 places a threshold on the likelihood of closure when distributional costs are high  $\tilde{\theta}_{E_H}$ , above which the ideologically committed politician (I) would prefer to withhold

compensation. We restate this result in Proposition 2, connecting the closure of a local factory to the endogenous choice of compensation:

**Proposition 2.** Ungenerous Compensation: Politicians withhold economically efficient compensation to discourage voters from electing a less ideologically committed challenger. This occurs if, in conditions where the distributional costs of the initiative are high, the voter is particularly likely to observe the negative signal F ( $\theta_{E_H} \geq \tilde{\theta}_{E_H}$ ).

Proposition 2 shows that offering compensation can lower reelection chances. Although compensation perfectly informs the median voter that the politician is willing to offer compensation in the second period, it also informs him that the policy initiative is likely to generate distributional harm. This can drive the median voter to take a bet on the challenger, not because of the challenger's alignment with the voter, but rather because of the challenger's relative flexibility to abandon the initiative.

This equilibrium is sustained by the prospects of voter punishment arising from the persuasive effect of compensation. In order to affect outcomes, it must be the case that economic conditions are in the intermediate state. It is under this condition that compensation reveals that the incumbent is ideologically committed (I) and, at the same time, incidentally increases voter's judgments that the state is  $E_H$ . It is only in this case that the voter would opt for the uncommitted challenger and vote against the incumbent. This off-equilibrium behavior is examined empirically in the following section, where we show that in communities only moderately affected by job-displacing import competition, exogenous increases in the compensation are punished by voters. In very severely affected communities, voters would not need compensation to inform them of the harms of globalization.

# $Summary\ Statistics$

Table B3: Summary statistics (N = 4,998)

Statistic	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
$\Delta \text{Rep } 2008\text{-}2000$	-1.68	7.63	-27.90	-2.54	2.60	32.60
$\Delta$ US-China trade pw	2.02	2.37	-0.63	1.33	2.67	43.08
$\Delta$ Lagged-Other trade pw	1.87	1.93	-0.72	1.29	2.60	28.66
Binary US-China Trade	0.35	0.48	0.00	0.00	1.00	1.00
Binary Other Trade	0.38	0.49	0.00	0.00	1.00	1.00
Lagged Share Manufacturing	21.30	11.12	0.11	13.23	28.60	61.82
Lagged Share Routine	29.47	3.09	19.99	27.40	31.90	37.75
Lagged Offshorability	-0.40	0.47	-1.64	-0.75	-0.11	1.24
Lagged Share Female Employed	63.18	6.82	33.24	58.94	67.88	79.61
Lagged Share Collage Population	45.82	9.22	19.94	39.36	52.74	70.56
Lagged Share Foreign Born	5.08	5.81	0.38	1.77	5.91	48.91
Midwest	0.34	0.47	0.00	0.00	1.00	1.00
Northeast	0.07	0.26	0.00	0.00	0.00	1.00
South	0.46	0.50	0.00	0.00	1.00	1.00
West	0.13	0.34	0.00	0.00	0.00	1.00
Instrumented TAA Cert. (by county, %)	63.00	1.98	58.06	62.11	64.13	67.79
Observed TAA Cert. (by county, %)	64.98	23.20	0.00	52.94	77.78	100.00
Counts of TAA Cert. (by county)	24.42	43.18	1.00	4.00	22.00	350.00

### CZ-level Instrumented TAA Certification

Our measure of instrumented TAA certification rate is calculated as the mean predicted value of TAA petition certifications in the CZ to which county j belongs between November 3, 2004 to November 3, 2008. To aggregate the certifying officer leniency to the CZ level, we first regress the petition outcome on the certifying officer who administered that petition. This gives us the predicted TAA certification rate of each petition. The average leniency of each certifying officer leveraged in the aggregation process varies from 58% to 68% (Table B4). As a second step, we calculate the mean predicted certification rate at the CZ-level. In this way, we can minimize the loss of its trait as an instrumental variable during the process of data aggregation. During the process of this aggregation, in total information on 9,035 TAA petitions are used to generate the CZ-level instrumented TAA certification rate of 505 CZs.

Jackknife instrumental variable estimation (Angrist et al., 1999) is used during this twostep process. That is, petitions in each CZ is left out when running the regression between the petition outcome and the names of certifying officer. Once left-out petitions of each CZ are then used as new data in calculating the predicted values of other CZs. We repeat the process for each remaining CZ. Table B2 illustrates the distribution of the CZ-level instrumented TAA certification rate. The mean instrumented certification rate is 62.92%. The minimum instrumented certification rate is 58.06%, and the maximum instrumented certification rate is 67.79% (Figure B2).

The CZ-level TAA certification functions as an instrument only when TAA petitions are randomly assigned to certifying officers. We test the random assignment of TAA petitions to certifying officers by regressing the certifying officer on pre-determined characteristics (Table B5). If the certifying officers are assigned to cases with particular demographic and economic characteristics, the coefficient should be statistically significant. Table B5 shows that the assignment of TAA petitions to certifying officers is largely random.

Figure B2: Distribution of instrumented TAA certification rate, CZ-level

# Distribution of instrumented TAA certification rate CZ-level, N=505, Bin width=0.1

Table B4: Statistics of TAA certifying officers

Predicted TAA certification rate, CZ-level

	Officer	Total Cases	Cert. Rate	First Case	Last Case
1	A	3056	0.58	2004-11-03	2008-11-03
2	В	2256	0.68	2004-11-03	2008-11-03
3	$\mathbf{C}$	3723	0.64	2004-11-03	2008-11-03

Notes: Following the rules from the Institutional Review Board, the last names of the certifying officers are anonymized. In total there are 9,636 petitions are administered by certifying officers between November 3,2004 and November 3,2008, among which 5,692 are certified in total (63%).

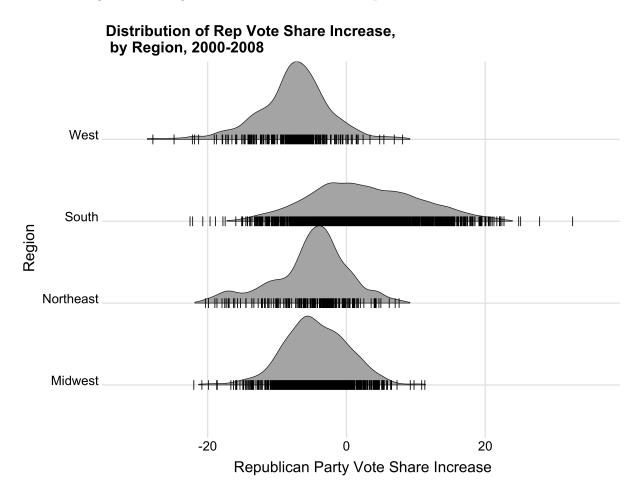
Table B5: Random assignment of TAA petitions to certifying officers

Variable	Cert.officer	Estimate	Std.error	p.value	
Pre-determined Demographics:					
Lagged Share of Female Employed	В	0.12	0.15	0.45	
Lagged Share of Female Employed	$\mathbf{C}$	0.03	0.14	0.80	
Lagged Share of College Population	В	-0.32	0.26	0.21	
Lagged Share of College Population	$\mathbf{C}$	-0.09	0.23	0.70	
Lagged Share of Foreign Born	В	-0.04	0.26	0.87	
Lagged Share of Foreign Born	$\mathbf{C}$	-0.21	0.23	0.35	
Pre-Determined Economic Variables:					
Lagged Share of Manufacturing	В	0.59	0.31	0.06	
Lagged Share of Manufacturing	$\mathbf{C}$	0.53	0.28	0.05	
Lagged Share of Routineness	В	0.14	0.08	0.07	
Lagged Share of Routineness	$\mathbf{C}$	0.10	0.07	0.14	
Lagged Offshorability	В	0.01	0.01	0.31	
Lagged Offshorability	$\mathbf{C}$	0.00	0.01	0.75	
Regions:					
Midwest	В	0.00	0.01	0.74	
Midwest	$\mathbf{C}$	0.02	0.01	0.08	
Northwest	В	-0.00	0.01	0.79	
Northwest	$\mathbf{C}$	-0.00	0.01	0.69	
West	В	-0.02	0.01	0.10	
West	С	-0.01	0.01	0.12	

Notes: The baseline is the certifying officer A, and the total number of TAA petitions administered by all the certifying officers is 8,347.

# Distribution of the Republican Vote Share Increase by Region

Figure B3: Regional distribution of the Republican vote share increase



### High and Low China Shock Regions

The followings are the density plots that divide high and low China shock regions based on Autor et al. (2013) (Figure B4). We code a region "high-shocked region" if the region has experienced import penetration higher than the mean threshold level (the blue dotted line). The upper figures present the distributions of the import penetration per worker (abbreviated as "pw") to the US before and after the year 2000 (See Equation 3.2 for the detailed construction). The bottom figures present the distributions of the instrument, namely the lagged import penetration per worker to eight other non-US high income countries before and after the year 2000 (See Equation 3.3 for the detailed construction).

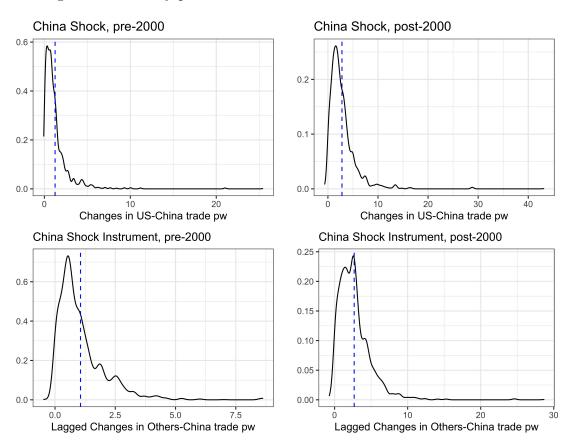


Figure B4: Density plots of the China shock measure and instrument

Notes: The blue dotted line is the mean threshold.

# The Consternation Effect in TAA, Binary China Shock Measure

Table B6: The consternation effect in TAA certification

	$Dependent\ variable:$	
_	Changes in Republican Party Vote Share	
High Economic Shock	-29.348**	
	(13.314)	
Instrumented Certification	-0.378***	
	(0.074)	
High Economic Shock*	0.491**	
Instrumented Certification	(0.211)	
Constant	36.945***	
	(5.319)	
2000 Ind/Occ Controls	Yes	
2000 Demography Controls	Yes	
Census Division Dummies	Yes	
Observations	4,998	
NT /	N 0 400	

Notes:

N=2,499 counties, excluding counties in AK and HI

Notes: The independent variable is the binary China shock measure (High and Low Economic Shock) with the mean threshold. The analysis leverages the party vote share of 2,499 counties, excluding counties in AK and HI.

### Government Assistance as a Mediator

According to the consternation effect (Lemma 2), economic relief such as TAA should mediate the effects of trade displacement. However, estimating such an effect in data conventionally requires the strong assumption of sequential ignorability. This assumption consists of two parts—(1) the treatment must be independent of all potential values of the outcome and mediating variables, and (2) the observed mediator, here TAA provision, must be independent of all potential outcomes given the treatment and the covariates (Imai et al., 2010). Unfortunately, the very design of TAA precludes it from being independent of trade outcomes: the observed compensation is a function of the degree of distributive harm.

To address the endogeneity of TAA certification and import competition, we again use an instrumental variable strategy. Specifically, we adopt the methodology of Frölich and Huber (2017) (causalweight package) in conducting instrumented mediation analysis, in which an instrumental variable is used for the mediator as well as treatment. For this analysis, we divide the China shock variable and instrument ( $\Delta IP_{i\tau}^{cu}$  and  $\Delta IP_{i\tau}^{co}$ ) into the high- and low- shocked areas at the threshold of their mean values. In the dataset, 45% of counties (1,083 counties) are classified as having been exposed to high levels of import competition, while the remaining 54.95% of them (1,321 counties) are classified as having been expossed to low levels of import competition. Figure 3.2 geolocates high- and low-shocked counties, and Figure B4 visualizes the density plot of the China shock variable and instrument.

Formally consider the outcome  $Y_j$ , a mediator  $M_i$ , a binary treatment  $D_{i\tau}$ , and instruments  $ZD_{i\tau}$  and  $ZM_i$  for the treatment and mediator respectively. If  $\overline{\Delta IP_{i\tau}^{cu}}$  is the mean Chinese import penetration and  $\overline{\Delta IP_{i\tau}^{co}}$  is the mean non-US Chinese import penetration in the CZ i during period  $\tau$ ,

$$D_{i\tau} = \begin{cases} 1 & \text{if} \quad \Delta I P_{i\tau}^{cu} \ge \overline{\Delta I P_{i\tau}^{cu}} \quad \text{(CZ i high-shock in period}\tau)} \\ 0 & \text{if} \quad \Delta I P_{i\tau}^{cu} < \overline{\Delta I P_{i\tau}^{cu}} \quad \text{(CZ i low-shock in period}\tau)} \end{cases}$$

$$ZD_{i\tau} = \begin{cases} 1 & \text{if} \quad \Delta I P_{i\tau}^{co} \geq \overline{\Delta I P_{i\tau}^{co}} & \text{(high non-US exposure to Chinese imports in period}\tau) \\ 0 & \text{if} \quad \Delta I P_{i\tau}^{co} < \overline{\Delta I P_{i\tau}^{co}} & \text{(low non-US exposure to Chinese imports in period}\tau) \end{cases}$$

$$M_{i} \equiv TAA_{i} = \frac{\sum_{p=1}^{m} TAA_{pi}}{m}$$
$$ZM_{i} \equiv \widehat{TAA_{i}}$$

These four variables are related by the following set of equations:

$$Y_{j} = \varphi(D_{i\tau}, M_{i}, X_{it}, U_{it})$$

$$M_{i} = \zeta(D_{i\tau}, ZM_{i}, X_{it}, V_{it})$$

$$D_{i\tau} = \mathbb{I}\{\chi(iD_{j\tau}, X_{it}, W_{it}) \geqslant 0\}$$

Note that the mediator  $M_i$  is a function of the treatment  $(D_{i\tau})$ , mediator instrument  $(ZM_i)$  and covariates  $(X_{it})$ . The treatment  $(D_{i\tau})$  is the indicator function of treatment instrument  $(ZD_{i\tau})$  and covariates  $(X_{it})$ .  $U_{it}$ ,  $V_{it}$ ,  $W_{it}$  are the unobservables (Figure B5). We are interested in identifying three effects:

1. The local average treatment effect among compliers (LATE):

$$\Delta = E[Y_j^1 - Y_j^0 \mid T = complier] = E[Y_j^{1, M_i^1} - Y_j^{0, M_i^0} \mid T = complier]$$
 (B.2)

2. The *direct* treatment effect among compliers:

$$\theta(d) = E[Y_j^{1,M_i^d} - Y_j^{0,M_i^d} \mid T = complier], d \in \{0,1\}$$
 (B.3)

<sup>5.</sup> The function *medlateweight* in the **causalweight** package weights the treatment and the mediator based on instrument propensity score. The weight by total votes in 2000 presidential election could not be included due to the way *medlateweight* function is designed. The authors therefore acknowledge that this estimation strategy is exposed to the threat of over- or under-representation of small counties over big counties.

3. The *indirect* treatement effect among compliers:

$$\sigma(d) = E[Y_j^{d,M_i^1} - Y_j^{d,M_i^0} \mid T = complier], d \in \{0,1\}$$
(B.4)

The Local Average Treatment Effect in this context refers to the effect of the China shock on changes of the Republican vote share among complier counties. This can be decomposed into two effects, the direct and the indirect effect. The direct effect is the impact of the China shock on changes of the Republican vote share, which is what has been estimated in analyses with different empirical models in the previous section. The indirect effect is the impact of economic relief (the instrumented TAA certification rate) in mediating changes in the Republican vote share due to the China shock.

Figure B5: Causal diagram of the instrumented causal mediation

# M: CZ-level TAA Certifying Officer Leniency Y: County-level Republican Vote Share Increase ZD: Lagged China Trade with Other Industrialized ADHM China Shock Model

### Causal Diagram of the Instrumented Causal Mediation Analysis

Countries

Conducting the instrumented mediation analysis requires following untestable assumptions. First, the treatment instrument  $(ZD_{i\tau})$  should fulfill the standard exogeneity assumption  $(ZD_{i\tau} \perp \!\!\! \perp (W_{it}, V_{it}, U_{it}))$ . That is, growth of Chinese exports to other high-income

Table B7: Instrumented causal mediation analysis

	LATE	Dir.treat	Dir.control	Indir.treat	Indir.control
Effect	4.09	6.34	4.3	-0.21	-2.25
SE	0.40	1.33	13.36	13.34	1.30
p-value	0.00	0.00	0.75	0.99	0.08

markets  $(ZD_{i\tau})$  should be unrelated to unobservables affecting the rise of US imports from China  $(W_{it})$ , unobservables affecting TAA certification rate  $(V_{it})$ , and unobservables affecting the changes in Republican vote share  $(U_{it})$ . Second, the treatment  $(D_{i\tau})$  should be weakly monotonic in the treatment instrument  $(ZD_{i\tau})$  (Pr(T=defier)=0, Pr(T=complier)>0). This means that the growth of Chinese exports to other high-income markets  $(ZD_{i\tau})$  should not decrease the degree of localized China shock  $(D_{i\tau})$ . Third, monotonicity of the mediator should hold. This means TAA certification rate  $(M_i)$  should be strictly monotonic in the scalar-transformed mediator unobservables  $(V_{it})$ . Fourth, conditional independence assumption needs to be satisfied  $(ZD_{i\tau} \perp \!\! \perp ZM_i \mid X_{it})$ . This implies, for instance, that regressing Chinese exports to other high-income markets  $(ZD_{i\tau})$  on the instrumented TAA certification rate  $(ZM_i)$  and covariates  $(X_{it})$  should not yield a statistically significant coefficient.  $(ZM_i)$ 

Table B7 presents estimates from an instrumented causal mediation analysis across 500 simulations. These coefficients estimate the Local Average Treatment Effect (LATE) among counties that experience increased trade with China because of China's ability to export in general. The direct effects of the China shock on Republican vote share are displayed in the second and the third columns. The fourth and fifth columns show the indirect effects of the China shock mediated by the instrumented TAA certification rate.

From the mediation analysis, we can see that voters in the high-shock counties are 4.09% more likely to choose the Republican candidate. Table B7 disaggregates this Local Average

<sup>6.</sup> Table B9 shows that the instrumented TAA certification rate (MZ) is not a statistically significant predictor of the Chinese exports to high-income markets (DZ) if we control for the covariates  $(X_{it})$ .

Table B8: Description of the instrumented causal mediation analysis

	Abbreviated	Full name	Explanation
1.	LATE	Local average	Aggregated effect of economic shock
1.	1. LAIL	treatment effect	on the Republican vote share
2.	Dir.treat	Direct effects	Economic shock's effect on the Republican
۷.	Dir.treat	under treatment	vote share in high-shock countries
2	3. Dir.control	Direct effects	Economic shock's effect on the Republican
ე.		under control	vote share in low-shock countries
4.	Indir.treat	Indirect effects	Mediated effect through TAA on the Republican
4.	indir.treat	under treatment	vote share in high-shock countries
5.	Indir.control	Indirect effects	Mediated effect through TAA on the
J.		under control	Republican vote share in low-shock counties

Treatment Effect (LATE) into four sub-components, depending on whether they are exposed to the treatment and the mediator. Among the four sub-components, the direct effects under treatment and the indirect effects under control are statistically significant. The former means for the high-shock counties, under the world without economic relief, the citizens are more likely to vote for the Republican candidate by 6.34%. The latter means among low-shock counties, through the mechanism of economic relief, voters are less likely to choose the Republican party candidate by 2.25%.

The negative and statistically significant coefficient in the indirect effect under control (Indir.control) empirically validates the strategic incentives for the incumbent politician to under-provide economic relief. Again, low-shock counties that are incidentally exposed to compensation, here because of the chance allocation of bureaucrats, appear to turn against the incumbent. A rational politician therefore would preemptively withhold socially optimal provision of TAA anticipating the voting outcomes.

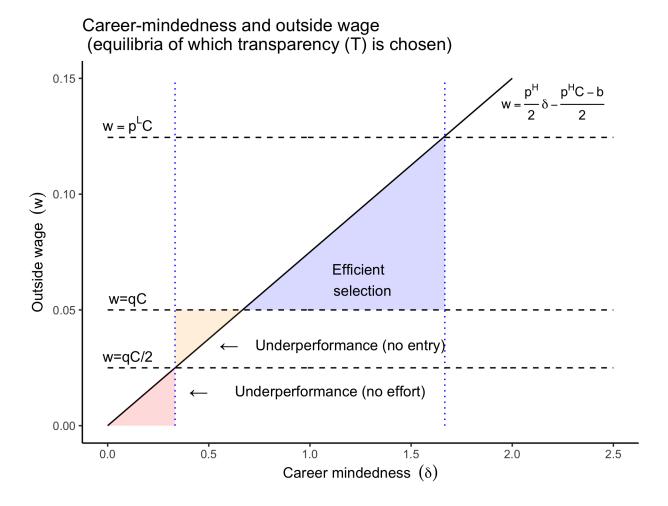
Table B9: Relationship between Chinese exports to high-income markets (DZ) and instrumented TAA certification (MZ)

	$Dependent\ variable:$
	Chinese Exports to High-income Markets (DZ)
Instrumented Certification Rate (MZ)	-0.001
	(0.003)
Lagged Share of Female Employed	0.011***
	(0.002)
Lagged Share of College Population	-0.004***
	(0.001)
Lagged Share of Manufacturing	0.025***
	(0.001)
Lagged Share of Foreign Born	0.006***
	(0.001)
Lagged Share of Routineness	-0.001
	(0.003)
Lagged Offshorability	-0.101***
	(0.021)
Northeest	0.401***
	(0.023)
South	0.198***
	(0.015)
West	0.080***
	(0.025)
Constant	-0.732***
	(0.229)
Observations	5,002
$\mathbb{R}^2$	0.340
Residual Std. Error	0.405  (df = 4991)
F Statistic	$257.125^{***} (df = 10; 4991)$

# C Appendix for "Who Wants to Work at a Transparent International Organization?"

### Additional Comparative Statics

Figure C1: Relationship between outside wage and career mindedness under transparency



Notes:  $C=1, p^H=0.15, p^L=0.075, q=0.05, b=0.15$ . The range between two blue dotted lines originates from "the moderate bias condition" of  $p^L\delta+(p^L-q)C < b < p^H\delta+(p^H-q)C$ .

# $Salience\ of\ All\ the\ GATT/WTO\ DGs$

Eric Wyndham White Olivier Long Arthur Dunkel 0.00000006 0.00000006 0.00000006 (%) 0.00000004 0.00000002 Frequency (%) Preduency (0.000000004 0.000000002 0.0000004 0.00000002 0.00000000 0.00000000 0.00000000 1950 1975 2000 1925 1950 1975 2000 1925 1950 1975 2000 1925 Year Year Year Peter Sutherland Renato Ruggiero Mike Moore 0.00000006 0.00000006 0.00000006 Evednency (%) 0.00000004 0.00000002 Frequency (%) Leedneuck 0.000000004 0.00000004 0.00000002 0.00000000 0.00000000 0.00000000 1925 1950 1975 2000 1925 1950 1975 2000 1925 1950 1975 2000 Supachai Panitchpak Pascal Lamy Roberto Azevedo 0.00000006 0.00000006 0.00000006 Ledneucy (%) 0.00000004 0.00000002 Ledneucy (%) 0.00000004 0.000000002 Ledneuck (0.00000004 0.00000002 0.00000000 0.00000000 0.00000000 1925 1950 1975 2000 1925 1950 1975 2000 1925 1950 1975 2000 Year Year Year

Figure C2: Google Ngram salience of all the GATT/WTO DGs

Notes: The two dotted lines in each plot mark the start and end year as a DG.