

YOU CAN JUST IMAGINE WHAT WE'LL DO IF YOU MESS WITH OUR FAMILIES political strikes and contract negotiations*

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Abstract

Why do some unions take political stands that are unlikely to change political outcomes yet are costly to members and the organization in terms of lost income and possible legal sanction? One possibility is that unions are attempting to demonstrate to employers their level of internal solidarity in an effort to extract better bargaining outcomes down the road without suffering a prolonged strike. We formalize this logic; key implications are that political strikes should be more likely near contract negotiations and that the probability of an industrial dispute during contract negotiations is lower after witnessing a political strike. We make a preliminary examination of these hypotheses using a new original dataset on work stoppages by the International Longshore and Warehouse Union (ILWU) from 1948 until 2008. We find that early in the union's history political strikes were not consistent with the expectations from a signaling model but that later bargaining and political mobilization became more tightly related. We find no evidence that political strikes prevent industrial disputes. A revised theoretical model coupled and more data will be necessary to better evaluate the lack of evidence for signaling.

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Members of the International Longshore and Warehouse Union (ILWU) observed May Day 2008 by closing down the ports from San Diego to Bellingham, WA. The official union newspaper, *The Dispatcher*, claimed that this action was to protest an illegal, unjust, and costly war in Iraq. Over 10,000 longshore workers stayed away from work (Serjeant and Woodall, 2008). The work stoppage was illegal under the union's contract so workers lost a full shift's pay. In addition to closing the ports many ILWU locals, including those in Seattle and Oakland, mounted major protest events that drew several thousand people up and down the West Coast.¹

The *Los Angeles Times* editorial page expressed a cynical evaluation of the protests: "More likely, it was a demonstration of union power directed at the Pacific Maritime Assn. [PMA], the organization of cargo carriers, terminal operators and stevedore companies that oversees union contracts. The two sides later got past their biggest stumbling block, reaching agreement on the details of a healthcare plan. Still under discussion are such items as wages, pensions and safety procedures. The longshoremen would be wise not to try to push shippers too hard on these issues, given the stresses the industry faces in the current economy." (Los Angeles Times, 2008) The Pacific Maritime Association thought that "[The May Day strike] raised the question of whether this was an attempt to leverage contract negotiations," (quoted in Serjeant and Woodall (2008)). For its part *The Dispatcher*, reported that "The May Day action had one important goal: to protest the war in Iraq. But it also produced some unexpected benefits, including a powerful display of membership solidarity, extraordinary public support, and extensive positive media coverage." (The Dispatcher, 2008). Ultimately, the union and PMA successfully negotiated a new contract—the first under the leadership of ILWU President "Big Bob" McEllrath—in which the union achieved many of its objectives while avoiding the industrial conflict that plagued the 2002 negotiations.

¹The ILWU locals in Los Angeles/Long Beach also shut down the ports on May Day but did not march; they had just participated in the LA County Labor Federation's Hollywood to the Docks march two weeks prior. This march was meant unify all the LA-area unions facing contract expirations in 2008.

Why would a union stop work over a political issue when the union's actions are unlikely to change policy and the issue at hand seems to have little to do with the economic interests of its members? Elsewhere, we explore how the combination of ideologically-motivated leaders and organizational rules can encourage membership mobilization for a variety of causes. We attempt to show how organizations affect individuals. Of particular interest are those who join the group for one reason but come to pursue goals they may not have considered previously (Ahlquist and Levi, 2008). Here, however, we explore the possible instrumental consequences of such behavior that can be used to bring along those who may not come to hold the political preferences of the leaders. The PMA and *Los Angeles Times* conjecture that political action produces some sort of advantage in contract negotiations; we pursue this hypothesis further.

We find this question of political work stoppages to be important for a number of reasons. First, broadly speaking, micro-level models of how organizations, whether churches (McDaniel, 2008) or unions, come to expand their scope of activity to politics are lacking, even though the profound importance of these types of groups in shaping political opinions and directing mass political action has long been recognized. Second, calls for fundamental transforming the American labor movement from conservative business unionism to a more inclusive social justice orientation are becoming increasingly common (Fletcher and Gapasin, 2008; Hurd, Milkman and Turner, 2003; Levi, 2003). Yet we lack a convincing explanation for why some unions are more politically active than others. In particular, why would workers go along with radical leadership and/or costly political action absent any discernable benefit? The signaling potential presented by costly political actions provides one possible rationale. Evidence in favor of a signalling model would provide temporal, scale, and duration bounds on the levels of political strikes we expect to observe. There is a large literature on waves of union militance and political activity. To the extent that large scale mobilization for political opposition is a problem of thresholds and/or coordination

(Granovetter, 1988), strong unions with politically committed leaders facing major contract negotiations might be an important place to look for that initial snowball that touches off an avalanche. Absent evidence for such a model implies that we should direct our attention to organizational, ideological, and normative explanations for such behavior. Third, important work by Judith Stepan-Norris and Maurice Zeitlen has demonstrated that Communist-led American unions won better contracts than their less ideological counterparts in the CIO period (Stepan-Norris and Zeitlin, 1991). If the signalling argument is correct, we may have one mechanism that helps explain the relationship.

We emphasize from the outset that providing an instrumental account for behavior that, on its face, appears ideologically motivated is not meant to imply that leaders or union members do not have strong political and moral commitments. Quite the opposite, in fact. Rather, we believe that leaders with strong ideological commitments and reputations are necessary for effectively calling political strikes. There is always something unjust in the world to protest yet political strikes occur only sporadically. Union leaders, however ideologically committed, must pick their battles carefully. It may be that impending contract negotiations provide a golden opportunity for radical union leaders to serve both God and Mammon.

In this paper, we provide one formalization of the political-strikes-as-signals logic. We build a simple model of union-employer bargaining under imperfect information in which the union has the opportunity to undertake a costly observable action prior to entering into negotiations with employers. We characterize the conditions under which a political strike will emerge in (Perfect Bayesian Nash) equilibrium and examine comparative static properties of this equilibrium. We then take a first cut at examine the strike and conflict behavior of the ILWU over its post-War history using a preliminary version of a newly constructed dataset on ILWU work stoppages. We find mixed support for the signalling logic and feel that better and more granular data will be needed to enable us to more fully

pass judgement on the hypotheses derived from the signaling model.

1 Bargaining, Strikes, & Politics

Strikes have been extensively studied across the social sciences. Economists have tended to focus on strikes through the prism of bilateral bargaining. Early work identified important relationships including that between strike frequency and the business cycle. Advances in non-cooperative bargaining theory stimulated a resurgence in modeling strikes from a bargaining perspective. Other analysts have looked at different aspects of strikes, like the number of strikers mobilized, man-hours lost, and duration. Taken together, these features—frequency, duration, and mobilization—describe the “shape” of strike behavior. Franzosi (1995) argues that government partisanship, wage bargaining institutions, and other features of the political economy should affect the shape of strike behavior. For example, he finds that Strikes directed at government are typically infrequent and short in duration but involve large numbers of strikers.

The notion of political strikes is an old, if ill-defined one. There is, of course, a distinguished tradition dating back to Marx and Rosa Luxemborg on the role of strikes in revolutionary politics. Lenin was famously concerned with how to transform the willingness of workers fight for local bread-and-butter issues into class consciousness. More recently, the political nature of strike activity has largely been studied at the national level, either as “waves” of worker unrest that are presumably driven by some common underlying grievances or as mobilizations organized by union peak associations to protest and (hopefully) change government policies. For our purposes we will be focusing on politically motivated work stoppages at the level of the bargaining unit, typically the union, as opposed to national peak associations. We know of no systematic study of political mobilization at the union level.

The relationship between unions' achievements in wage bargaining and their political commitments has received even less attention. A major exception is the work of Stepan-Norris and Zeitlin (1995, 2003). They find evidence that Communist-led and more democratic unions won better contracts than more conventional American unions during the CIO period. This important finding notwithstanding, we are left to speculate as to the mechanisms generating this finding.

Political strikes are, of course, only one way in which unions might try to signal resolve or internal solidarity to employers. Unions might preemptively take up a collection for a strike fund. Union negotiators might attempt to win strike authorization from the membership before or during the bargaining process or try to win promises of solidary action from other unions.² Nevertheless, political strikes have additional features. Since these actions are not directly and obviously related to the immediate self-interest of the members the union may be sending a signal saying "See what we can turn out for political causes. Just imagine what we'll do if our livelihoods are on the line." Second, we conjecture that not all unions or union leaders can effectively call political strikes. Union leaders with pre-existing reputations for radical political commitments may be better able to elicit rank-and-file cooperation with their exhortations to join a protest, particularly if they are embedded in a union that has a history of joining such actions. Union leaders and organizational cultures that have long avoided or been actively antagonistic to any actions not of immediate service to the material interest of members would be less able to mobilize members for a political strike.

We are not the first to investigate internal unions politics and strike behavior. Golden (1996) investigates strikes over job losses in several countries, arguing that the degree to which redundancies will affect the union leadership cadre and shop-floor organizers affects the extent to which the union will fight layoffs. However, the issue we are investigating

²For example, the ILWU conducted two "solidarity barbecues" with the other major unions in the transport sector—Teamsters and International Longshoremen's Association—immediately prior to the expiration of their contract in 2002. The ILWU has historically had tense relations with both unions.

is quite different. Golden attempts to account for the variation in strike activity among similarly situated workers. Our aim is to explain the conditions under which political strikes might make employers reconsider their strategies during contract negotiations.

1.1 information and bargaining

In wage bargaining, unions represent workers who sell their labor to employers in exchange for a wage. It has long been recognized that if unions and employers are fully informed about each other's objectives and capabilities, striking is costly, and some profitable exchange exists, then there is no reason to resort to strikes. The union and employer have every incentive to come to terms without disrupting production. Under these assumptions, strikes must therefore be the result of irrational or mistaken actors (Hicks, 1932). Current thinking about strikes—and the process of bargaining more generally—takes a different approach, one fundamentally related to the notion of incomplete information.³ If either or both of the two parties are uncertain about the relevant parameters, the bargaining process now becomes a means of communication; conflict, including strikes, can emerge in equilibrium as both a result of this asymmetric information and as a means for credibly transmitting information to the other party.

Bargaining models can rapidly become very complex, depending on the information structure, who gets to make offers, and when (Kennan and Wilson, 1993; Powell, 2002). More uncertainty generates a proliferation in possible equilibria. Nevertheless, a commonly used structure is one in which the union gets to make repeated offers to the employer but is uncertain of the value the employer attaches to the union's labor. The employer can accept or reject a settlement at each point in time and delay is costly. In such a model, a strike, i.e., continued delay, is a way for the union to “price discriminate” between types of employers.

³Rubinstein (1982) is frequently cited for stimulating the work on non-cooperative bargaining models. See Kennan and Wilson (1993) and Powell (2002) for reviews of the bargaining literature in economics and international relations, respectively.

Firms highly valuing the workers' skills will settle quickly whereas those with a lower valuation will hold out longer. Empirical evidence for this model has been mixed, to put it kindly (Card, 1990; Tracy, 1986).

Other forms of uncertainty are plausible. As Kennan and Wilson (1993) recognize

[P]rice discrimination is ineffective if the union cannot impose a substantial cost of delay on the firm after rejecting an offer. Thus screening is a profitable tactic for the union only if it can sustain morale for an appreciable duration after an offer is rejected. Conceding a lower wage quickly merely encourages the firm to expect an even better offer soon thereafter...[T]he delay between its offers is a form of commitment that in practice it must maintain by doing its utmost to sustain members' determination to impose on the firm an appreciable cost of rejection and ensuing delay...[T]he absence of an explicit explanation of how this commitment is maintained is a severe deficiency of these models. (Kennan and Wilson, 1993:61-2)

Kennan and Wilson go on to discuss signalling models in which the delay between offers and counter offers (i.e., continuing to strike) is a signal in its own right.

We consider a different form of *pre-bargaining* signalling, one that is complementary to the information transmission involved in the actual bargaining-and-strike process that is the typical purview of the economic literature. Furthermore, while strikes clearly occur over wage-and-benefits issues, strikes are often bound up in power struggles between the employer and the union over control of the shop floor or hiring.⁴ In American labor history, the most bitter strikes have been over simple recognition of the union as a bargaining agent,

⁴ “[A] strike may occur. But it is not aimed at preventing layoffs per se. Rather, its goal is the establishment or modification of procedures with which to select individuals for dismissal.” (Golden, 1992:421). A possible extension—one we defer for future work—might consider a more dynamic setting in which the union and employer fight over arrangements that determine their relative power on the shop floor, something that subsequently affects the “resolve” of one of the parties. See Fearon (1996) for initial work on similar issues from an international relations perspective.

not over wage increases. As such, the uncertainty could just as easily be on the side of the employer: how “resolved” is the union to fight for what it values? The employer may be uncertain over the extent of rank-and-file support for the leaders’ policies and bargaining stance, particularly when the union has militant leaders.

We emphasize that we model one way in which costly union signaling can have value, namely by preventing a more costly industrial strike down the road, but other models are certainly possible. For example, pre-bargaining signaling might be a way for the union to shorten the duration of negotiations. We discuss revisions and extensions of this framework in the conclusion.

2 A signalling model of political strikes

In this section we formalize our argument with a simple bargaining model. There are two players, a *Labor* union and an *Employer*. The union can vary in its level of resoluteness or internal solidarity. For simplicity we categorize the union as being of one of two possible types: *strong* or *weak*. We denote the union’s type with the function $t(L)$ which takes values in $\{s, w\}$, $1 \geq s > w \geq 0$. The players are bargaining over some divisible surplus normalized to unity. We assume that the value of the surplus is common knowledge. Let $x \in [0, 1]$ denote the union’s share of the surplus and assume that the Employer holds prior beliefs that $Pr(t(L) = s) = p$. Also assume that E and L hold common discount factor $\delta \in [0, 1]$. Play proceeds as follows:

1. A non-strategic player (“Nature”) determines the level of the union’s resoluteness $\in \{s, w\}$.
2. L observes $t(L)$ and decides whether to send a message m at cost $m/t(L)$
3. In period 1, E observes the message and updates beliefs about $t(L)$ via Bayes’ Rule

4. In period 1 L makes an offer x_o^L
5. In period 1 E either *accepts* the offer or makes a counter offer x_o^E
6. In period 2, L can either *accept* the offer or *reject* it.
7. If L rejects the offer, it goes on strike. Striking has fixed is cost k . Strike payoffs are assumed to be $t(L) - k$ and $1 - t(L) - k$ for L and E respectively.

Note that we assume, with some loss of generality, risk-neutral unions and employers. In the model, the union's type determines two payoff-relevant quantities. First and most obviously, the type determines the expected (and actual) settlement won as the result of a strike. Second, the type determines the cost at which the union can send a signal, i.e., mount a political strike.

Our set up relies on several important substantive assumptions: first, the internal solidarity and resoluteness of the union is not directly observable. Second, resoluteness or solidarity positively affects the effectiveness of the union in a bargaining situation. Third, we assume that there is always something worth protesting—the union can always send a signal if it so desires. Fourth, we assume that agreements (contracts) are enforceable *ex post*. We find the latter two assumptions to be a fairly innocuous in the context of pre-existing unions and well-defined labor law found in contemporary rich democracies. In situations of tremendous upheaval or when fighting for initial union recognition, this formulation may assume too much.⁵

2.1 Full information benchmark

We begin by characterizing the full-information (subgame perfect Nash) equilibrium. Working backwards, L will accept x_o^E iff $x_o^E \geq t(L) - k$ and strike otherwise.⁶ Knowing $t(L)$, the

⁵In the case of the ILWU, the period between 1934 and 1948 is essentially an ongoing battle with employers over the role and very existence of the union, with a pause for World War II.

⁶Assuming the union accepts when indifferent between striking and accepting.

employer will offer the union exactly its reservation value: $x_o^{E*}(t(L); k) = t(L) - k$ and the union will accept. In period 1, the Employer's expected payoff from rejecting the union's offer is $\delta(1 - t(L) - k)$. If this quantity is greater than x_o^L the Employer rejects the union offer. The union must offer the Employer at least as much as E expects to get should it get to make the next move, but discounted by one period. This yields the strong union's optimal offer $x_o^{s*} = 1 - \delta(1 - s - k)$. Any x_o greater than this will induce the Employer to reject the offer and make a counter offer. Replacing s with w gives us the weak union's optimal period one offer $x_o^{w*} = 1 - \delta(1 - w - k)$. Thus, in equilibrium under full information the type- s union offers x_o^{s*} , weak L offers x_o^{w*} , and the Employer accepts, given play on the equilibrium path. In equilibrium under full information there is no striking, no signalling, and all bargaining occurs in the first period.

2.2 pooling on no signalling

Suppose neither type of union sends a signal. The Employer's posterior beliefs are the same as its prior. We again work backwards. L 's move at the final stage remains as above. The Employer formulates its offer to maximize its expected payoff; it must weigh the risk of a strike against the cost of over-paying the weak union (relative to its reservation wage). We therefore need to consider three actions from the Employer:

1. Offer nothing and take a strike with certainty, with expected payoffs of $p(1 - s - k) + (1 - p)(1 - w - k)$
2. Offer $1 - s - k$, i.e., a strong union's reservation value, which both types of union accept
3. Offer $w - k$, i.e., the weak union's reservation value and take a strike with probability p . Expected payoffs are $p(1 - s - k) + (1 - p)(1 - w - k)$

Clearly options 3 and 1 weakly dominate option 2. Whether E will choose $x_o^{E*} = w - k$, $x_o^{E*} = 0$ or randomizes between the two is irrelevant as payoffs are all the same in expectation.

Let π be the expected payoffs for x_o^{E*} . E 's discounted expected payoff from rejecting the union's initial offer is therefore $\delta\pi$.

To make the Employer exactly indifferent between accepting its offer and rejecting, the union must offer $x_o^{L*} = 1 - \delta\pi$. This quantity is always greater than the weak union's (discounted) strike payoff, $\delta(w - k)$, so offering anything less than x_o^{L*} is weakly dominated. For the strong union, $1 - \delta\pi \geq \delta(s - k)$ if $p \geq p^*$, where

$$p^* = \frac{\delta(s - w - 2k + 1) - 1}{\delta(s - w)}$$

If p is sufficiently high, the strong union is better off if the Employer accepts x_o^{L*} than it is striking down the road. For $p < p^*$ the union is unwilling to offer enough to make the Employer accept and therefore offers some amount greater than x_o^{L*} . Differentiation and some algebra shows that p^* is decreasing in k and increasing in δ , i.e., the greater the costs of a strike less the Employer must expect the union to be strong in order to induce a settlement in the early going. The more patient the players the more confident the employer must be that the union is strong to induce an early settlement.

What does the employer infer if it sees $x_o^L > x_o^{L*}$? It cannot update beliefs such that $Pr(t(L) = s) > p$ because if it did, the weak union has an incentive to try and mislead the Employer by offering something other than the Employer's reservation settlement. So the employer ignores the offer and continues to believe $Pr(t(L) = s) = p$. Furthermore, given employer beliefs, no union can profit by deviating and send a signal. We can now characterize the pooling equilibria:

Proposition 1 *There exist perfect Bayesian Nash equilibria in the bargaining game described such that*

- Both L_s and L_w send signal $\hat{m} = 0$
- L_w offers x_o^{L*} ; L_s rejects any $x_o^E < w - k$ and accepts otherwise.

- If $p > p^*$, L_s offers x_o^{L*} otherwise L_s offers $x_o^L > x_o^{L*}$; L_s rejects any $x_o^E < s - k$ and accepts otherwise.
- E accepts any $x_o^L \leq x_o^{L*}$ and rejects otherwise; E offers x_o^{E*} .
- E holds beliefs that $Pr(t(L) = s|\hat{m}, x_o^L) = Pr(t(L) = s|\hat{m}) = p$
- Off the equilibrium path, E holds the following beliefs: If $m > \hat{m}$ believe $Pr(t(L) = s) = p$.

In the pooling equilibria, there is a positive probability of an industrial strike; bargaining may also stretch out longer. But the equilibrium relies on the unattractive properties that the Employer's off the equilibrium path beliefs are not updated in the event of a political strike. We discuss this further below in the context of reputation.

2.3 separating equilibria

Suppose there are separating equilibria in which the strong union sends some signal m^* and weak L prefers to take its outcome rather than mimic the strong union's signal. The signal is therefore informative so E updates beliefs such that $Pr(t(L) = s|m^*) = 1$.⁷ Since a signal is purely a sunk cost, both types of union make equilibrium decisions at the final node just as in the full information case. In order for signalling to be an equilibrium outcome, two conditions must then hold. First, the benefit to the strong union for sending the signal is at least equal to the cost:⁸

$$1 - \delta(1 - s - k) - \frac{m^*}{s} \geq \delta(s - k) \quad (1)$$

The term on the left of inequality 1 is the union's payoff for having the Employer agree to x_o^{s*} in the first period minus the cost of mounting the political strike. The employer will agree

⁷ $Pr(t(L) = s|m^*) = \frac{Pr(m^*|t(L)=s)Pr(t(L)=s)}{Pr(m^*|t(L)=s)Pr(t(L)=s)+Pr(m^*|t(L)=w)Pr(t(L)=s)} = \frac{p}{p+0*(1-p)} = 1$

⁸Given the value of m^* derived below it will never be profitable for L_s to forego a signal and offer x_o^{w*} .

since it knows the union is strong. The term on the right is what the strong union gets if it sends no signal but the makes offer x_o^{s*} . For any $m < m^*$, E believes that $Pr(t(L) = w) = 1$ and therefore rejects the offer⁹, making counteroffer $x_o^{E*}(w)$, which the strong union rejects and strikes. Both the union and the Employer get payoffs associated with a strong union strike.

Second, the equilibrium signal must be such that the weak union will not want to send it:

$$1 - \delta(1 - s - k) - \frac{m^*}{w} \leq 1 - \delta(1 - w - k) \quad (2)$$

The term on the left is the benefit for mimicking the strong type. The term on the right is the weak union's payoff for not attempting to send a signal: exactly what it would get in the full information setting. Note that the weak union will never want to send any $m > 0$ since it bears a cost and sees no benefit. Since the strong union will want to send the cheapest signal possible, condition 2 will hold with equality in equilibrium, thus $m^* = w\delta(s - w)$. Note that fixing w and increasing s increases the level of the signal that L_s must send; the greater the difference between s and w the more weak-type unions have to gain by mimicking and therefore the more the strong types need to signal. Similarly, the lower the cost of delay/more patient the players (δ increases) the bigger the signal needs to be.

Putting conditions 1 and m^* together, it is in a strong union's interest to send this signal if and only if either of the following conditions hold:

$$\frac{w(s - w)}{2s} \leq k \leq 1 \quad (3)$$

$$k < \frac{w(s - w)}{2s} \quad \text{and} \quad \delta \leq \frac{s}{s(1 - 2k) + w(s - w)} \quad (4)$$

⁹It is well known that there are many equilibria for bargaining games under asymmetric information in which the informed party makes the offer and this game is no different. The separating equilibrium described here depends on the employer's off-equilibrium path beliefs, i.e., what does the employer infer from seeing no signal but $x_o^L > x_o^{w*}$? There are a range of beliefs that can support signalling but we concentrate on the simplest one in which the Employer believes that $Pr(t(s) = s | m < m^*, x_o^L) = Pr(t(s) = s | m < m^*) = 0$ for any x_o^L .

Substantively, it is only profitable to send a costly signal if striking is sufficiently costly and/or players are sufficiently impatient.

We can now state the following proposition:

Proposition 2 *If either condition 3 or 4 hold then there exist separating perfect Bayesian Nash equilibria in the bargaining game described such that*

- L_s sends signal m^* and offers x_o^{s*} ; L_s rejects any $x_o^E < x_o^{E*}(s)$
- L_w sends signal $m = 0$ and offers x_o^{w*} ; L_s rejects any $x_o^E < x_o^{E*}(w)$
- If E see observes $m \geq m^*$, E accepts any $x_o^L \leq x_o^{s*}$ and rejects otherwise; if E observes $m < m^*$ E accepts any $x_o^L \leq x_o^{w*}$ and rejects otherwise.
- E holds beliefs that $Pr(t(L) = s|m^*, x_o^L) = Pr(t(L) = s|m^*) = 1$
- Off the equilibrium path, E holds the following beliefs: If $m < m^*$ but $x_o^{w*} < x_o^L < x_o^{s*}$ believe $Pr(t(L) = s) = 0$. If $x_o^L > x_o^{s*}$ or $x_o^L < x_o^{w*}$, beliefs are unrestricted.

On the equilibrium path there is signalling (political strikes) but no industrial disputes.

2.4 discussion & implications

Our goal is to see what, if any, empirical evidence there is for the political-strikes-as-signal hypothesis. In the model, bigger s implies “bigger” political strikes in the separating equilibria. Political strikes will not occur when the union is weak. In an empirical situation, however, we will never observe the union’s level of solidarity, so we cannot directly test that proposition. But the model does lead to two testable implications. The first stems directly from the structure of the game itself: political strikes, if they occur, will occur near the beginning of contract negotiations. In our set up, they occur in exactly the same period as contract negotiations begin. If they occurred prior to this point, the union would have to

further discount contract gains from signalling by the time between signalling and contract settlement. Signalling closer to the bargaining time period gives more bang for the signalling buck. *We should expect to see a higher likelihood of political work stoppages as we approach the onset of wage bargaining, all else fixed.*¹⁰

The second testable hypothesis relies on the comparison between the signalling and pooling equilibria. If we observe a no-signalling period, we cannot be sure if we are observing a weak union or a strong union in a pooling equilibrium. But *if we observe political work stoppages and the signalling logic is correct, we should also see a decreased probability of contract negotiations breaking down into an industrial strike.*

This brings us to the question of equilibrium selection and Employer beliefs off the equilibrium path. To our thinking, these issues are directly bound up with issues of repeated play and reputation—two other features absent from the theoretical discussion thus far. When players are bound up in long-term, repeated bargaining relationships, as with the ILWU and PMA examined below, players can develop reputations for strength or striking; in equilibrium there will be no need to signal if a reputation is sufficiently well-established. Even if the strength of the union fluctuates from time to time, the Employer need not be signalled in every period. We conjecture that a pooling equilibrium is what should be expected most of the time. When large shocks to the union occur—such as the election of a new leader, the introduction of a major new technology, the retirement or influx of a large cohort of members—the union’s reputation may not be enough to maintain its bargaining power.¹¹ Put another way in a situation characterized by repeated play and reputational concerns, we expect pooling on no political strikes to be the outcome; when the union has a valuable reputation for being strong it need not signal. When events sufficiently increase the uncer-

¹⁰As an interesting implication, conditional on union resolve, political strike occurrence should cycle along with the bargaining calendar. Where bargaining calendars are coordinated across large numbers of workers we expect to see larger-scale political activities up to and including national work stoppages. We defer examination of this to future work.

¹¹All these events have occurred repeatedly to the ILWU-PMA bargaining pair.

tainty about the union’s solidarity, the need to transmit information can induce signalling. While these reputational concerns affect the overall propensity to engage in political work stoppages, they do not invalidate our other two empirical hypotheses.

3 The ILWU: case selection & data

3.1 The ILWU

Examining the relationship between bargaining and political strikes requires a level of detail not found in the standard work stoppages data (e.g., from the US Bureau of Labor Statistics). Specifically, we need to know that timing of contract expiration at the level of the bargaining unit, the timing of work stoppages, and the purported cause or grievance for the work stoppage. We therefore focus on one particular bargaining pair: the ILWU and PMA. We choose this pair for a number of reasons. First, ever since 1938 the ILWU has succeeded in putting all west coast ports (and longshore locals) under a single contract, alleviating issues of contract timing across different union locals. Second, the ILWU and PMA keep detailed historical records and have generally shown a willingness to work with us in piecing together a dataset. Third and most importantly, the ILWU offers a relatively rare but not unique example of a union with an organizational culture that regularly produces large-scale membership commitments to actions that transcend narrow material interest. This activism has spanned eight decades, six different international presidents, and numerous political causes. In 1937 the ILWU chose to prevent ships from transporting scrap iron from the US to Japan in protest against the Japanese invasion of Manchuria. The union’s actions were not against the employers but represented an intervention in the foreign policy of the labor-sympathetic government of President Franklin Roosevelt. The ILWU still actively engages in national and international political and social conflicts. Some of those are on behalf of other workers, as in the refusal to load grapes that did not bear the United Farm Workers

seal and the 1997 worldwide boycott of the cargo ship, Neptune Jade, loaded by non-union labor. However, the union also closed ports on May 1, 1999 to protest the death sentence for Mumia Abu-Jamal and on November 30, 1999 during the demonstrations against the WTO Ministerial in Seattle. This makes the ILWU a nice test case for our signalling model. Its leaders have reputations for commitments to political and social justice causes, and they have a demonstrated ability to mobilize members to act on these commitments.

3.2 data

3.2.1 Work stoppages

The key variables for our study are indicators of significant work stoppages in the US West Coast ports. Unfortunately there is no centralized publicly available “official” record of port labor disputes for any significant length of time.¹² In order to have a single consistent report of work stoppages, especially political, solidary and other symbolic events, we collected the entire historical record of the ILWU newspaper, *The Dispatcher*, which has been published continuously since 19XX. By relying on the union paper as our record of work stoppages we recognize that we are likely not picking up all work stoppages. Localized events lasting a short time are less likely to be picked up. Some work stoppages are illegal under the union contract, exposing the union and its officers to legal sanction and fines, so there is clear incentive to ignore or downplay work stoppages in general. There is also the possibility that the union leadership, who exercises ultimate editorial control over the paper, reports only certain types of work stoppages, downplaying unsuccessful or unauthorized events. Nevertheless, we do have a consistent record of the work stoppages that the union leadership wants to call attention to in addition to the official union statement of the stoppage’s purpose. The very fact that there are repeated mentions of these stoppages in the union paper, notwith-

¹²US Bureau of Labor Statistics reports are insufficiently disaggregated, provide no record of motivation, and rely on union and employer reports in any event.

standing the risk of sanction, implies that the union is trying to send some sort of message. The stoppages that are most likely to be consistent with the signaling model are exactly those loudly reported in *The Dispatcher*. We believe that *The Dispatcher* is a reasonably reliable source for data on the existence of symbolic work stoppages, though less so for purely industrial disputes. We are in the process of gathering contract bargaining duration data to supplement our record of industrial disputes.

We concentrate on the post-1946 period. Many of the important covariates described below are only available after World War II. Also, prior to 1948 the ILWU and the Waterfront Employers' Association¹³ were engaged in what can only be termed industrial warfare, with the ILWU attempting to expand and consolidate its control of work on the docks while the WEA repeatedly attempting to break the union. Working conditions prior to World War II were governed by federally imposed arbitration awards, not contracts in the conventional sense. During the War, the ILWU-WEA conflict was relatively dormant due to the needs of the war effort, but resurfaced in 1946 and then, crucially, in 1948. The 1948 strike was a disaster for the employers; as the strike dragged on, the WEA tempered its militant anti-union stance, named a more conciliatory negotiating team, and ultimately signed its first contract with the ILWU, ending the strike. There was not another coastwise longshore (industrial) strike until 1971.

We aggregate the data to the quarterly level. In each quarter, we code a “1” if there is evidence of a work stoppage in that quarter and a “0” otherwise. *The Dispatcher* also reports the ports and union locals involved so we have a rough idea about the size and geographic scope of the stoppage, though we have no consistent data on the number of participants or duration. We code any stoppage that involves two or more of the large West Coast ports¹⁴ as “major” otherwise a stoppage is coded as “localized.” Work stoppages are

¹³reconstituted as the PMA after the 1948 strike.

¹⁴Los Angeles/Long Beach, Portland, San Francisco/Oakland, Tacoma, Seattle

coded as “industrial” or “symbolic.” Our default coding is “industrial”; in the absence of any evidence of any declared objective for a work stoppage clearly political or solidaristic motivation, we assume the work stoppage is an industrial grievance or dispute.

Symbolic strikes are further categorized as “political”, “solidaristic”, or “other.” When there is evidence of a work stoppage in which 1) workers’ representatives make no demand on employers; 2) there is no mention of an industrial grievance; and 3) there is some justification given in terms of political issues or objectives, broadly construed, we conclude that the union engaged in a political work stoppage in that quarter. Solidaristic work stoppages are ones in which the union stops work in order to respect the picket line of another union or in support of another striking union. We consider these types of strikes to be analytically distinct from purely political work stoppages as there is clearly an expectation of reciprocity when supporting another union currently on strike. That said, solidaristic striking may also serve to signal employers. Also unions like the Teamsters who resolutely avoided politics also generally refused to engage in sympathy actions (cite). Finally there are a handful of events that are clearly not industrial but are not overtly political or solidaristic. For example, the union shut down the ports in 2001 to commemorate Harry Bridges’ 100th birthday. Events of this sort we code as simply symbolic. Since 1948 we observe 16 quarters in which there is some political work stoppage and 30 quarters where there is a symbolic event of some kind. We record 40 quarters in which there are industrial work stoppages. In the analysis we focus on political strikes and make note of how findings differ if we expand the types of events to include these other symbolic acts.

3.2.2 Covariates

The key covariates of theoretical interest concern the bargaining calendar. Ever since 1948, the ILWU has negotiated coastwise contracts approximately every three years, with contracts generally expiring in July. Based on reports in *The Dispatcher* and from the contract

documents themselves we code the quarters in which contracts expired. From this we then calculate the number of quarters until the contract expires as our measure of the bargaining cycle. If the signalling logic holds, the coefficient on this variable should be negative in models predicting political strikes. We also construct an indicator variable that takes on 1 if the contract expires within the next 12 months and 0 otherwise; this variable should be positive if the union is using its political activities to improve its bargaining position.

To look at the relationship between industrial and political work stoppages we also construct a dummy variable that takes on the value of 1 if there was a political work stoppage in either of the previous 2 quarters and 0 otherwise. If the signaling argument is correct we expect this variable to be negatively associated with industrial work stoppages.

INTERNAL UNION VARIABLES

There are several potentially relevant union-specific issues. First, union leaders might vary in their objectives, political and moral commitments, beliefs about the best union strategy, and ability to attract rank-and-file support. The ILWU has had six different International presidents in its history, starting with Harry Bridges, legendary for both his successful dealings with employers and his strong political stances. We examine whether there is discernable differences in union political strike behavior across leadership cadres. We also construct a variable called “first contract.” This variable takes on a “1” for all quarters after the election of a new president up to the first contract expiration on his watch. We expect the election of a new president to increase the employer’s uncertainty about the union’s intentions and internal level of resolve. A new president may not initially be as credible when invoking the union’s reputation for strength and political radicalism. As the new president has a greater incentive to signal resolve to the employer, we expect a greater probability of political strikes after the election of a new president, all else equal. Finally, the ILWU holds its all-union convention every two or three years. At these conventions union policy is set and political resolutions passed. The variable “convention year” takes is coded

as “1” for the year leading up to a convention and “0” otherwise. While we have no *a priori* expectation about the directionality of this variable on the propensity for political strikes, coming up for election will clearly impact leaders’ strategic calculus when calling strikes.

POLITICAL VARIABLES

The costs and benefits of calling political strikes surely vary with the external political climate. A Left wing union like the ILWU may be more prone to strike when Republican policies are being implemented; they may be correspondingly less willing to embarrass a Democratic administration by shutting down the ports for political reasons.¹⁵ We include indicator variables taking on “1” if the US President is a Republican and “0” otherwise. We include a similar variable, GOP governors, that sums the number of Republican governors among California, Hawai’i, Oregon, and Washington state. Wars may also provide a reason to protest. We therefore code quarters in which the US is at war (Korea, Vietnam, and the Gulf/Iraq wars).

ECONOMIC VARIABLES

There is substantial evidence that strike activity follows the business cycle. When times are good and labor markets tight workers have greater bargaining leverage and are more prone to strikes (Ashenfelter and Johnson, 1969; Farber, 1978). We account for this in two ways. First, we track the business cycle in the shipping industry. Unfortunately shipping volume data are not readily available for the major west coast ports prior to 1974. So we use the annual percent change in industry value added for the transportation and warehousing industry, as reported by the US Bureau of Economic Analysis. These data are only available at an annual level, so we apply the total yearly change to each quarter.¹⁶ To account for the

¹⁵Though it is unclear the extent to which the ILWU has any particular affinity for Democratic administrations. The ILWU refused to load ships taking scrap iron to Japan under FDR, supported Henry Wallace in the 1948 Presidential election, and marched against the WTO ministerial in Seattle under Clinton.

¹⁶While this obviously overstates the quarterly changes, we are merely interested in characterizing whether times in the industry are good or bad, which this strategy accomplishes. Linear interpolation would be problematic due to the highly seasonal nature of the shipping industry. This seasonality has, itself changed over time as trade with Asia has become increasingly important.

overall state of the job market we include the national unemployment rate.¹⁷

4 Results

4.1 political strikes and the bargaining calendar

We turn first to the probability of a political strike. We fit models of the form $Pr(\text{political strike}_t) = \text{logit}(X_t\beta)$ where t indexes time. Since there may be temporal dependence all models were fit with linear time trends. The time trend never achieved conventional significance levels and deviance residuals exhibited no serial correlation.

Table 1 reports results. Models 1 and 2 are fit to the entire time period, 1948-2002. Pooling all the data we see some evidence consistent with expectations: political strikes are more likely closer to contract expiration. This relationship is consistent across both measures of bargaining proximity, but the magnitude of this relationship is relatively small and is marginally significant in model 1. Also interesting is that we see no discernable relationship between *any* of the macroeconomic, political, or union-level covariates and the likelihood of a political strike.

¹⁷State-level unemployment data are not available until 1976

Table 1: Logit models of political strikes

	model 1	model 2	model 3	model 4	model 5	model 6
time to contract exp.	-0.09 (0.06)		-0.03 (0.07)		-0.24 (0.12)	
contract year		1.24 (0.57)		-0.01 (1.00)		2.17 (0.87)
unemployment	-0.40 (0.24)	-0.37 (0.24)	-0.44 (0.52)	-0.38 (0.51)	-1.11 (0.69)	-1.22 (0.76)
%Δ industry VA	0.07 (0.07)	0.06 (0.08)	0.16 (0.12)	0.17 (0.12)	-0.05 (0.17)	-0.07 (0.17)
ILWU convention year	0.69 (0.57)	0.75 (0.57)	0.55 (0.85)	0.48 (0.85)	1.16 (0.80)	1.08 (0.82)
first contract	-15.94 (1710.22)	-16.22 (1712.81)			-16.73 (1638.96)	-16.56 (1641.38)
GOP governors	0.10 (0.45)	0.10 (0.44)	1.50 (1.01)	1.44 (0.97)	0.29 (0.80)	0.39 (0.85)
GOP president	-0.23 (0.66)	-0.27 (0.67)	-1.61 (1.16)	-1.56 (1.13)	-0.59 (1.16)	-0.60 (1.22)
war	-1.02 (0.79)	-1.05 (0.78)	<i>-3.00</i> (1.76)	<i>-2.89</i> (1.72)	0.15 (1.47)	0.02 (1.49)
period	All	All	Bridges	Bridges	Post-Bridges	Post-Bridges
<i>N</i>	244	244	118	118	126	126
BIC	268.11	266.26	164.27	164.46	186.69	184.07

Standard errors in parentheses; constant and linear time trend estimated but not reported
 Estimates in bold achieve $p < 0.05$. Italicized estimates achieve $0.05 < p \leq 0.10$.

Results are striking, however, when we compare union behavior under Bridges' leadership with that under his successors.¹⁸ Models 3 and 4 are for the Bridges era, ending in 1977. These models perform poorly; none of the bargaining calendar variables have any discernable relationship with the union's political strike behavior. In marked contrast, models 5 and 6 show a strong relationship between the bargaining calendar and political work stoppages in the post-Bridges period.

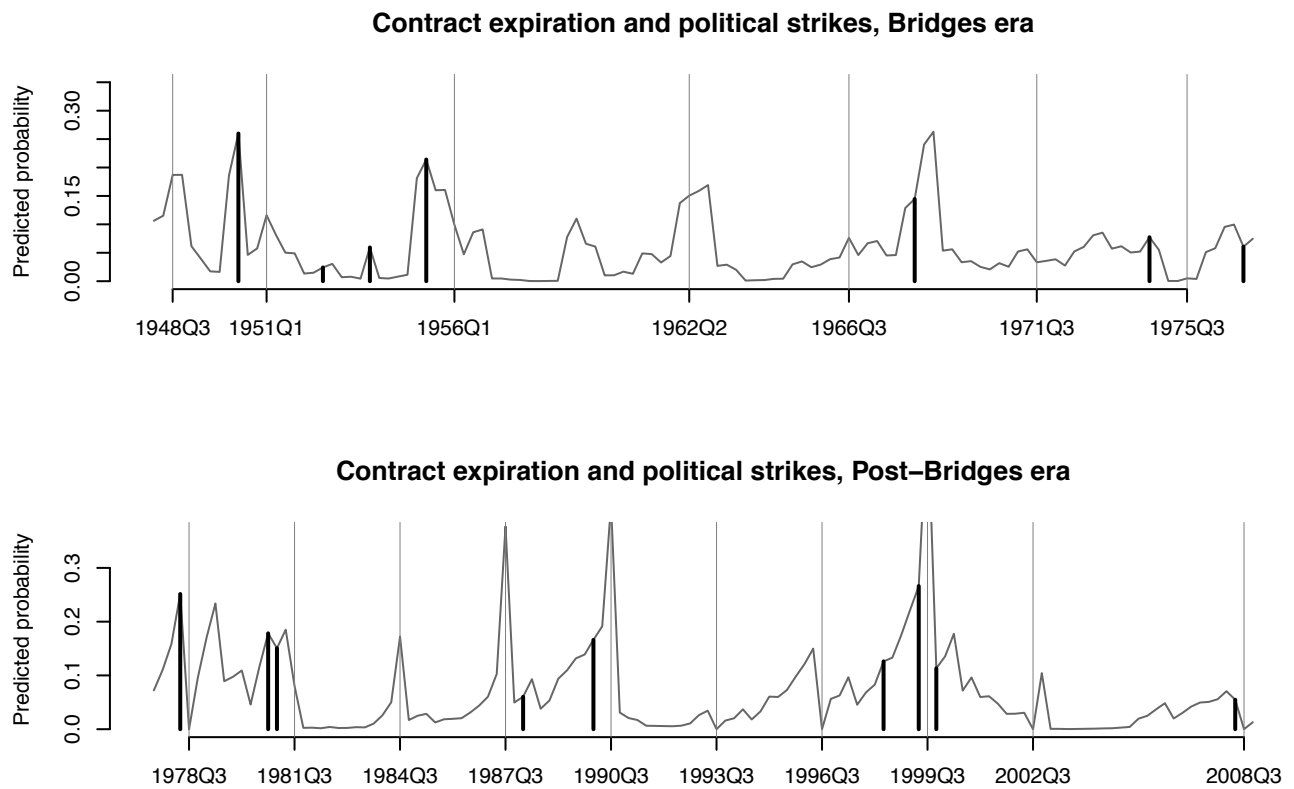
To better see this distinction and its magnitude, figure 1 plots the political strike behavior of the ILWU over the Bridges (upper) and post-Bridges (lower) periods. Light vertical lines represent contract expirations. Dark vertical bars depict political work stoppages with height proportional to the predicted probability of a political strike in that quarter as taken from Model 3 (upper) and Model 5 (lower). The line in the background plots the predicted probabilities for each quarter. Politically motivated work stoppages reported in *The Dispatcher* clearly cluster nearer to the end of contract periods in the later period, a fact picked up by the statistical models.

The results for the Bridges period are inconsistent with what we would expect if the union's political involvement were purely an attempt to signal the employer about union solidarity. The lack of any evident correlation between political work stoppages and bargaining under Bridges may also be due to Bridges long tenure and known militance¹⁹. He had no need to signal to employers and was therefore free to focus on politics at other times and he was able to elicit rank-and-file participation for these political projects. It is equally clear that this commitment to social and political causes has survived both Bridges term as ILWU president and his life. But in more recent periods the union's expression of its longstanding

¹⁸It is worth noting that models with separate intercepts for each ILWU president did not pick this relationship, i.e., the indicator variables were all insignificant. The split sample estimation used here is akin to estimating models where the president has a multiplicative relationship with all the covariates. Further exploration of the five post-Bridges presidents (not reported here) showed them to be statistically indistinguishable from one another. Not surprising given their relatively short tenures.

¹⁹He ran the foundational 1934 and 1938 strikes, a period not in our dataset

Figure 1: The negotiating calendar has little bearing on political strikes while Harry Bridges was ILWU president but in later years the two are closely related.



Note: Predicted probabilities for the upper panel taken from model 3; those in the lower panel are generated by model 5.

political commitments have become more tightly correlated with the bargaining calendar. Union behavior under subsequent leaders, while consistent with the organization’s stated commitments, is also largely consistent with what we might expect if the union is sending a message to employers: “see what we’re willing to do for causes far removed from our immediate self interest. You can just imagine what we’re willing to do if you if you mess with our families” . The union’s reputation and culture for involving itself in political affairs may be self sustaining in part *because* it ends up having instrumental value for the members in terms of improved or more efficient bargaining outcomes.

4.2 political and industrial strikes

Is there any evidence that political strikes have any payoff in the negotiations with employers? In this section we examine one possibility: the relationship between political strikes and onset of industrial disputes. If the model we formulated is correct, our key expectation is that the likelihood of an industrial dispute should be lower following observed political strikes. We again fit logistic regression models but now industrial work stoppages are the outcome of interest. The key covariate from a theoretical perspective is our indicator of whether there was a political strike in the previous quarter. We also include an indicator for whether the contract expired that calendar year²⁰ and the macroeconomic and macropolitical controls used in models 1-6. Results are displayed in table 2.

The models here perform relatively poorly in predicting industrial disputes.²¹ None of the models show any relationship between political strikes and industrial work stoppages. Furthermore, unemployment shows a significant relationship with industrial strikes opposite the direction in models 7 and 8 while industry demand shows significant but conflicting

²⁰Note that the contract year variable in models 1-6 was an indicator of whether the contract expired in upcoming quarters. Here we use calendar year since industrial strikes could (and do) occur both before a contract expires and during negotiations, which frequently extend past the expiration date.

²¹This is unchanged using numerous permutations of major/localized symbolic/solidary work stoppages or if only analyzing contract years.

Table 2: Logit models of political strikes

	model 7	model 8	model 9
Lag political strike	-0.26 (0.58)	-16.84 (1695.52)	0.80 (0.70)
contract yr	-0.03 (0.41)	0.50 (0.65)	-0.91 (0.64)
first contract	0.32 (1.20)		0.66 (1.31)
unemployment	0.27 (0.12)	0.65 (0.28)	0.02 (0.30)
% Δ industry VA	0.00 (0.04)	0.13 (0.06)	-0.16 (0.08)
GOP governors	-0.08 (0.23)	-0.12 (0.39)	0.45 (0.48)
GOP president	-0.10 (0.43)	0.51 (0.70)	-0.64 (0.68)
period	All	Bridges	Post-Bridges
N	244	118	126
BIC	355.50	186.18	230.09

Standard errors in parentheses; constant and linear time trend estimated but not reported

Estimates in bold achieve $p < 0.05$. Italicized estimates achieve $0.05 < p \leq 0.10$.

results in models 8 and 9. Even more curiously, the industrial work stoppage variable is unrelated to the expiration of contracts.

Clearly these data provide no evidence that political strikes affect the likelihood of subsequent industrial disputes, but the curious findings for the other covariates and the models' overall poor performances give us pause. We think it possible that *Dispatcher* reports of industrial disputes may be inappropriate or inconsistent. It is also possible that our model of bargaining is incorrect or too simplistic. It could be that signaling affects the size or duration of industrial disputes or the length of time it takes to reach an agreement, but not the simple occurrence of a work stoppage (or whether they are reported in *The Dispatcher*). A revised theoretical model coupled and more data will be necessary to better evaluate the lack of evidence for signaling.

5 Conclusions

Labor unions are important actors in politics, but how they justify and sustain political mobilization and the timing of their involvement is still an open question. An even bigger complication is how unions sustain costly involvement in political issues far from the immediate interests of the members or the organization. This paper examined the hypothesis that political involvement, especially work stoppages, are efforts to credibly signal strength and solidarity to employers and thereby achieve better wage bargaining outcomes. We formalized one way in which this might work and in so doing clarified the empirical expectations needed to test the argument while also showing that strong assumptions about the formation of beliefs on behalf of the employer are needed to sustain this line of reasoning. We presented a preliminary empirical test using data from the ILWU-PMA bargaining pair from 1948-2008, with mixed results for the signalling model. We found that in the early period of the union when its founder, Harry Bridges, was president, political strikes were unrelated to the bargaining calendar. But after Bridges had passed from the scene the union's political actions became more tightly related to contract negotiations. When we tried to discern whether observed political strikes had any relationship with subsequent industrial work stoppages we found little evidence for a relationship. Better data and/or alternate conceptions of how bargaining operates in the shadow of costly signals will be required to resolve this ambiguity. One way we are doing this is by expanding our data collection to include the Australian Waterside Workers' Federation, which also has a long history of political mobilization. Future iterations of this project will include this analysis.

So far we have only examined political strikes and bargaining against the (implicit) null hypothesis that they are simply unrelated. But even if the evidence does not favor a signaling interpretation the notion that the union's large scale and public political actions are wholly disconnected from its bargaining relationship seems hard to swallow, even more

so when looking at the historical record. Politically radical union leaders like Harry Bridges repeatedly justify the union’s involvement in politics by linking political causes with the union’s industrial power. For example, union leaders may take advantage of “audience costs”, i.e., taking publicly militant stances in advance of bargaining that make it more costly for them to back down from these stances once bargaining has begun.²² Audience costs are held to be more binding when leaders face the realistic possibility of removal and when statements and commitments made by the leader can be readily observed by the rank-and-file, i.e., something approaching a democracy. We note in passing that the long-entrenched democratic practices of the ILWU (Levi et al., 2009), *The Dispatcher* itself among them, may also play a role in making the ILWU leaders stances credible in the eyes of both the membership and the employer.

Another possibility is to extend uncertainty to the union side in addition to the employer. Union leaders may themselves be uncertain as to how effective s/he will be in mobilizing members for industrial action. Union members may be uncertain of their fellow members’ willingness to turn out for a strike. Political actions may serve to signal or even build internal resolve.

Finally the question remains why more unions do not involve themselves deeply in politics if doing so actually has the benefits the signaling logic implies. After all, they cannot *all* be weak-type organizations and continue to survive. The leadership and organizational requirements for sustaining political commitments and actions is something we take up elsewhere.

Data appendix

Industrial work stoppage = 1 if there was historical evidence (as discussed in the text) of any work stoppages not classified as “political”, “solidaristic”, or “symbolic.”

²²See, e.g., Fearon (1997); Schultz (2001); Slantchev (2006) on audience costs. See Tomz (2007) for evidence of the existence of audience costs.

Political work stoppage = 1 if there was historical evidence of a political work stoppage (as discussed in the text)

Contract expiration = 1 if the coastwise contract expires in that quarter and 0 otherwise.

Time to contract expiration Number of quarters until a coastwise labor agreement between the ILWU and PMA expires.

Contract year = 1 in the 3 quarters prior to the expiration of an ILWU-PMA coastwise labor contract (models 1-6) or the calendar year of a contract expiration (models 6-9).

Convention = 1 in years of an ILWU International Convention, taken from library microfilm records of convention proceedings and *TheDispatcher*.

First contract = 1 in every quarter until the first contract expiration after a new ILWU president is installed.

GOP = 1 if the US President is a Republican and 0 otherwise.

GOP governor Sum of the number of Republican governors in office in each quarter among California, Hawai'i, Oregon, and Washington.

war = 1 if the USA was involved in each of the major foreign wars, respectively. Vietnam is dated from the coup against Diem.

Δ **Industry VA** Annual % change in industry value added in current dollars (United States Bureau of Economic Analysis, 2009).

Unemployment US national unemployment rate (United States Bureau of Labor Statistics, 2009)

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