Institutionalizing Conflict:
The Transaction Costs of Ameliorating Labor-Management Distrust

Margaret Levi, Matthew Moe, and Theresa Buckley
University of Washington
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Distrust at the workplace between managers and workers and especially between employers and unions can reduce productivity and increase inefficiencies--as well as make the workplace an unappealing place to be. But the existence of distrust can motivate the creation of institutional arrangements that ameliorate the worst effects of distrust while enabling employers and unions to establish domains of Pareto superior cooperation. Both distrust and the institutions it engenders raise the transaction costs of the labor-management relationship. But do institutions established to ameliorate the worst effects of distrust produce sufficient benefit to justify the cost? It is not easy to determine the transaction costs entailed in distrust and its amelioration or to evaluate the social gains from reducing distrust. This paper offers an initial effort.

In the literature on relationships between employers and their employees, Chester Barnard lives again. Trustworthy leadership, managers who elicit the trust and loyalty of their workers, is once more in fashion as a means of enhancing productivity (see, e.g. Miller 1992; Kreps 1990; also see Arrow 1974). The same kind of approach also has its followers in the regulatory literature (e.g. Ayres and Braithwaite 1992). From this perspective, social relationships of trust are a complement to incentives, monitoring and other means to reduce shirking and induce high performance.

Conflict at the workplace over wages, hours, and working conditions creates a different set of transaction cost problems than does the motivation of high performance. Instead of particular individuals in a hierarchy of bosses, supervisors, and workers, the decision-makers are collective actors: labor and management. Monitoring and enforcement of rules are less likely to be the means of resolving disruptive tensions than are negotiation and the exercise of power, such as the firing of agitators by employers or the uses of strikes by employees. The withdrawal of resources, e.g. jobs or work, on which the other depends is an important credible threat for bringing the recalcitrant to the bargaining table. This strategy can have a negative side effect, however, for the actual withdrawal of resources can lead not only to loss of income but also to bad feeling that can have a long-term destructive effect on workplace relationships and productivity. Where distrust is pervasive between labor and management, conflicts of interest are more likely to evoke behaviors that further offend the other party.
Distrust may be the problem, but trust is not always the solution (Levi 2000, 137, 152-3). In situations in which there are simultaneously structural bases for conflicting interests and Pareto improvements from cooperation but reasons to fear hostile behavior by the other, the rational baseline position is distrust, not trust. This is particularly the case where the parties or individuals each control resources on which the other depends, resources whose withdrawal could inflict serious damage or loss. In some instances and over many kinds of issues, distrust is not a problem at all; it is a sensible stance. But when distrust leads to suboptimal outcomes, then the parties have an incentive to find ways to overcome distrust.

At the root of the distrust is conflict of interest, but we should be clear here that it is the distrust that requires a palliative. Eradication of the conflict of interest between labor and management is probably an unobtainable goal. It is, however, possible to overcome distrust sufficiently to take those conflicts to the bargaining table or to appeal for their resolution to a third party. While the conflicts will not disappear, compromises and negotiated settlements might become feasible.

Establishing a means for resolving differences through collective bargaining or another form of negotiation or arbitration may be cost-effective. Institutional arrangements may also facilitate the building of trust that so many contemporary analysts see as crucial to a high performance workplace. More precisely, institutions are likely to make the affected actors more trustworthy, that is, less likely to act opportunistically towards each other. For labor to believe management is trustworthy, labor must have assurances of its rights to organize the workplace and engage in collective bargaining. For management to believe labor is trustworthy, it must have assurances that slowdowns and work stoppages will be a last, not a first, resort. Both must feel free from harassment. In the absence of trust among the parties, it is difficult to build trust. The establishment of institutions that protect both employers and employees provides some basis for the parties to begin to believe the other is trustworthy.

It is also conceivable, however, that the institutional arrangements will facilitate new forms of strategic action and amplify rather than reduce distrust in the long run. If one side knows how to rig the game to its advantage, then dysfunctional distrust again becomes the norm. If one or the other side in the bargaining relationship is able to capture the purportedly neutral third party who is managing the conflict, then the institution itself becomes untrustworthy and there are new sources of distrust. New forms of strategic action also arise from the perception of institutional bias in day-to-day decisions. Institutional capture requires evidence of intent on the part of the capturing party; no intent is necessary for institutional bias, which can result from the structure of the formal rules or from the unintended consequences of standard practices within the agency. But be it institutional bias or capture, the result is likely to be an increase in distrust by the party who neither controls the institution nor benefits from its bias.

If we start with distrust as the baseline position and institutions as a response, it is possible to begin to develop a transaction cost model of ameliorating distrust. An individual, A, will distrust another individual, B, when A has a rational belief that it is in B’s interest and within B’s capacity to harm A in regard to some specific purpose, X. This belief depends on sufficient information about B’s interests and capacities. This leads to the transaction costs of acquiring and assessing information about B, monitoring B’s behavior, and establishing means to enforce B’s behavior in ways that ensure B acts consistently in the interests (or at least not against the interests) of A. To prevent probable
injury or to ameliorate its effects implies a credible alteration of B’s interest in doing harm.
There are two basic mechanisms, and both involve institutions (in the Northian sense) and
transaction costs:
1. On-going relationships that alter the conception of interest from the short-term to
   the long-term, even in the absence of third parties;
2. The establishment of rules with third party enforcers that alter the incentives the
   actors face.
The first is a viable mechanism only when the relationships are on-going, interdependent,
and face-to-face and when the parties are relative equals. The parties can then rely on
intra-community means for punishing those who have been trusted and have violated
common norms of reciprocity and fairness (Taylor 1987 [1976]; Greif 1994). Employers
and their workers may and often do have long-term and interdependent relationships, but
they are rarely face-to-face in large-scale industries or in firms with distant owners.
Although there can exist intra-community sanctions, there are likely to be two communities
rather than one; the managers and the workers answer to separate groups. Moreover, they
are rarely equals, especially in the early stages of union organizing when the balance of
power lies with the employer who can fire or speed up at will.
Indeed some of the worst working conditions and the angriest workforces have
emerged in just those industries, such as mining and textiles, where the workers, their
parents, and their children were life-time employees of a particular firm. Distrust of
management by labor is often the effect of a significant imbalance in bargaining power and
in access to critical information. Without union representation, workers are unlikely to
have the necessary parity with management to feel confident that they can bring
management’s interests more in line with their own. Managers, too, can suffer from what
appears to be intractable distrust of unions, if not the workers. They fear that unions will
gain too much power, disrupting the workplace arbitrarily, destroying rapport and good
will among the managers and the workers, undermining profits severely, and ultimately
destroying the business itself. Informal institutions or norms of reciprocity will seldom be
stable, given such strong incentives to exploit power imbalances.
Reputational mechanisms for ameliorating distrust are effective in the labor-
management domain only when there is already sufficient confidence that rules of the game
are in place that can ensure orderly negotiation and protect each party against the excesses
of the other. It is formal institutions that provide the background conditions for the partners
in on-going interactions to transform their relationships from feuding to cooperative. It is
formal institutions that alter the incentives for untrustworthy behavior by creating severe
punishments for failing to act according to certain established guidelines of behavior.
Although the negotiators may have good reason to distrust the unconstrained behavior of
the other actors, they can trust each other in a regulated setting to the extent that they have
confidence that the laws and rules are effectively enforced by third parties.
But these rules and enforcement procedures have potential drawbacks. First, they
come with costs, the costs of establishing collective bargaining and of enforcing the laws
that protect labor and management rights in the process. Second, they are susceptible to
manipulation and transformation; what works at one point in time may not work so well
over time—and thus reproduce or even increase distrust. With changes in the ability of
actors to use the system for their own ends, there are also likely to be variations in the
relative costs and benefits of using the system. For example, as unions gain recognition and
bargaining power, an institution set up to equalize power relationships between labor and
management may undermine the trustworthiness of unions, who can end run a reluctant employer. Alternatively, managers may find means to ensure that initially impartial institutions are either crippled or captured. The possibilities abound, given the difficulties of designing an institution whose agents are both capable of acting and of remaining disinterested.

Most of this paper attempts to establish the costs to the public and effects on the players of an institution meant to alleviate distrust and the suboptimal effects of distrust. The empirical focus is on the National Labor Relations Board (NLRB). Established as the means to enforce the National Labor Relations Act (commonly known as the Wagner Act), the National Labor Relations Board (NLRB) regulates representation elections by unions and the unfair labor practices, as determined by law, of employers. The Taft-Hartley Act (1947) extends the regulatory apparatus to the unfair practices of unions. A creation of the Roosevelt administration, the NLRB was very pro-labor in its early days, but the rules changed with the Taft-Hartley Act, the Norris-LaGuardia Act (1959), and the decisions of the NLRB subsequent to the election of Ronald Reagan in 1980.

The NLRB may have been designed to level the playing field between two unequal players and to improve labor's bargaining power vis-à-vis management, but legislative and rule changes have altered the nature of the NLRB over time in order to also alleviate management's distrust of unions and of the NLRB as a union-captured regulatory agency. If the playing field were truly level, our expectation would be an inverse relationship between relative bargaining power and filing of charges, that is employers would be more likely to file when unions would not and unions to file when employers would not. The analysis that follows has the counter-intuitive finding that the same structural factors enhance the probability of filing unfair labor practices by both players, even though these factors have differential effects on the relative bargaining power of each. How can that be? The answer rests on our analysis of the changes in institutional arrangements that affect the strategic interactions among the parties and affect what they perceive as the best means to defend their interests against players they distrust.

Another focus of the paper is comparison of the transaction costs expended and saved by the creation of the NLRB. There are only a few notable attempts to measure the transaction cost sector (Wallis and North 1986; North and Wallis 1994), and one of our goals is to extend this effort into additional domains. In particular, we are interested in figuring out how to measure the transaction costs created by governmental regulatory agencies. Determining the transaction costs of the NLRB work is relatively straightforward—although time-consuming. What is more difficult to estimate is the trade-off between costs and benefits. Do the benefits of government intervention outweigh the additional costs to society? DeSoto (1989) gave a clear "No" to that question in his analysis of the effect of regulation on the Peruvian economy. We believe the issue deserves further investigation and consideration. We are not so certain De Soto was right, and part of our task, incomplete in this paper, is to think through the problem of how to measure the effects on productivity and on labor relations as well as on time, price, and the other factors DeSoto discussed.

**THE MODEL**

There is a voluminous literature on the National Labor Relation Act, the Taft-Hartley amendments, and the cases and behavior of the National Labor Relations Board itself.
However, a major survey of this literature more than a decade ago (Delaney, Lewin, and Sockell 1985) reveals very little attention to the issues we raise in this paper. The only exception is some research on political bias among the members of the board, which finds that those appointed by Democrats tend to support unions and those appointed by Republicans tend to favor employers in their decisions (Delaney, Lewin and Sockell 1985, 50-1). Since the publication of this review, there has been some additional research that uses formal and quantitative methods to assess the unfair labor practice charges filed with the NLRB.

Moe (1985) offers the most sophisticated quantitative and theoretical analysis to date of the role of politics. He finds that employers and unions consider the probability of success in their decisions to initiate unfair labor practice cases, and one of the most significant determinants of perceived probability of success is the composition of the Board. He argues that the NLRB is composed of an endogenous core of relationships among the constituents who file charges, the staff who filter the charges, and the board members who make the final determinations. Each can be affected by exogenous political pressures from the president, the congress, and the courts or exogenous economic circumstances such as inflation and unemployment. He concludes that the formal outcomes of the NLRB result from "mutually adaptive behavior" among the core actors and that this produces "a distinctive logic and dynamic process" to the NLRB (Moe 1985: 1114).

Flanagan (1989) also uses the data on unfair labor practices to consider the nature of the NLRB as a regulatory apparatus. For him the puzzle is that the relative stability of labor relations activity, as measured by representation elections, work stoppages, and collective bargaining negotiations, is accompanied by a significant increase in the volume of unfair labor practice charges (Flanagan 1989: 257-61). He argues that this growth reflects changes in the incentives to comply and in the incentives to evoke enforcement of the Act by employers and unions, who are engaged in strategic interaction with each other. He then models the compliance and enforcement game and, finally, subjects its implications to empirical test. He concludes (Flanagan 1989: 278) that most important influences on the "compliance and enforcement choices that determine the volume of unfair labor practice charges" are not NLRB policy but "incentives that are determined in the market and through collective bargaining. In particular, the growth of the union relative wage during the 1970s, by reducing the incentives of employers to comply with the NLRA and by increasing the incentives of unions to challenge potentially illegal behavior had a profound influence on the growth of regulatory litigation."

Flanagan and Moe offer two distinct models of the variation in unfair practice charges. In Flanagan’s the strategic interaction is effectively between labor and management, whose choices are affected mostly by economic circumstances that alter their incentives to comply with or evoke regulation. In Moe’s, the strategic actors also include the staff and board of the NLRB with exogenous political and economic factors inducing adjustments in their mutually adaptive system. We shall explore both of these models in what follows. We, too, use the volume of regulatory litigation as a dependent variable, and we follow Moe and Flanagan in their choice of independent variables—at least in part of our analysis.

Ours, however, is a third model. We follow Flanagan in defining the key strategic actors as labor and management, and we follow Moe in understanding that those actors must consider the probable behavior of the NLRB staff and NLRB board. The decision tree for filing cases with the NLRB is captured in Figure 1. The first mover can be either
management or labor, but it is the second mover who files—or not. Even when the first mover has been cooperative, the second mover may decide to file if he either misreads the behavior of the other or believes that there is an advantage to be gained by filing. It is then the turn of the staff to decide whether to dismiss outright or accept the complaint. If the staff accepts the complaint then it is the up to the Board to reject or uphold the complaint.

![Decision Tree for Case Filing at NLRB](image)

Our model assumes that the key actors have conflicting interests and reasonable bases for distrust and that they vary across time in their relative power to cause harm. Thus, by definition when labor is "weak," unions lack numbers and density of membership within the workforce and lack the capacity to strike. Their relative weakness is an effect of laws and job market power as much as of internal union organization. When management is "weak," it cannot tolerate a strike or effectively prevent unionization among its workforce. This too is an effect of law and job markets but also of worker control over the shop floor. Of course, both unions and management will try to prevent each other from having complete information about their "weaknesses" and will attempt to present a picture of "strength." This is a major source of imperfect and incomplete information.

From this perspective, filing behavior becomes another means for improving one's bargaining position, making oneself stronger vis-à-vis one's opponent. Although both labor and management may benefit from cooperation created by regulation, each will also attempt to exploit the other if possible. Thus, we can model their interaction as a game, and we can vary some key attributes of the players and the environment in ways that should enable us to infer some testable implications from our model. We derive our games from
those developed by Golden (1997, 28-37) to investigate labor and management strategies when the firm threatens job reductions, but we revise them to reflect strategies relevant to union demands for recognition and bargaining rights.

To make the point that the existence of an institution such as the NLRB will change the nature of the relationship between labor and management, let us consider the case where there is no regulatory apparatus. (Figure 2a) This is the situation Golden models in her “simple job loss game” (1997, 29). Labor threatens to strike, but management knows that the union would prefer to avoid a costly strike. The equilibrium is management resistance to the union and union quiescence. With the introduction of the NLRB, the calculation changes. The costs of filing are considerably lower than the costs of striking and provide labor with an alternative strategy, a strategy that may be as effective as a strike in compelling management to acquiesce to its demands for recognition and bargaining. In this simple game (figure 2b), both labor and management have perfect information about the intentions and ability of the other and about the likely behavior of the NLRB. What this game models is a situation where labor is attempting to organize a union and hold a representation election. It is in management’s interest to block the election or ensure that labor loses the election. It is in labor’s interest to hold the election and win it. Thus, when management cooperates with labor and fails to act against the union, there is no reason for labor to file. Within this simple framework $x_1, x_2$ represents mutual cooperation for management and labor respectively. The situation where management defects and labor is represented by $y_1, y_2$. And finally defection by management followed by filing on the part of labor is represented by $(x_1-c), (x_2-c)$, where $c$ represents the costs to each party of filing and defending case. Management’s preferences are $y_1 > x_1 > (x_1-c)$, and Labor’s preferences are $x_2 > (x_2-c) > y_2$. This game suggests that the very existence of an institution such as the NLRB should reduce distrust between the players, reduce overt conflict and hostility, and enhance cooperation, ceteris paribus, but only after an initial increase in the costs to the public of establishing the NLRB and to the players in using and learning to use its machinery. Solving this game through backward induction, cooperation emerges as an equilibrium outcome. Management will choose to cooperate from the start because labor will always choose to file whenever management defects, that is, refuses to recognize or bargain with labor. This will hold as long as the payoff $y_2$ never becomes greater than $(x_2-c)$. 
Figure 2a: Simple Strike Game, Perfect Information (without Institutional Framework)

<costs of filing and defending>

Management:
- Cooperate: \( x_M, x_L \)
- Defect: \( \text{Strike} \) with (\( (x_M, y) \), \( (y_M, c) \)), \( \text{Labor} \) with (\( y_M, y_L \))

Labor:
- \( x_L > y_L \) with (\( y_M, y_L \))

Figure 2b: Simple Filing Game, Perfect Information (with Institutional Framework)

<costs of filing and defending>

Management:
- Cooperate: \( x_M, x_L \)
- Defect: \( \text{File} \) with (\( (x_M, y) \), \( (y_M, c) \)), \( \text{Labor} \) with (\( y_M, y_L \))

Labor:
- \( x_L > y_L \) with (\( y_M, y_L \))

Management: \( y_M > x_M \) with (\( x_M, y_L \))

Labor: \( x_L > (y_L, y) \) with (\( y_L, y_L \))
The outcome in the first simple game depends on management’s capacity to predict that the union will not strike; in the second it depends on certainty that the NLRB is effective, that is, timely in its intervention and able to actually compel management to recognize a legally organized union. A more realistic version of the first game (the game where there is no institution), is a situation of imperfect information, in which management does not know whether labor is strongly or weakly organized, whether it is strike prone or not. The perception of the threat of unionization will encourage management to act to block the union unless a strike is extremely credible and the costs it is likely to impose extremely high. However, without an institutional framework to regulate the situation, and with no certainty in the assessment of labor’s strength, management’s best strategy is unclear. Moreover, without an institutional framework, poorly organized or timid labor unions lack any credible bargaining threat for inducing management to make concessions to them. On the other hand, an institution such as the NLRB may provide a basis for believing that the other party will act in a trustworthy manner, that is be trusted not to sucker a player who chooses to be cooperative. This in turn may reduce overt conflict and its associated costs.

But the game is not really so simple. Labor and management do not always have perfect information about each other or about the nature of the NLRB. The next game attempts to capture some of these complexities (Figure 3). In this game, \( c \) represents the cost of filing, \( s \) represents the costs to each party of a strike, and \( p \) represents probability that labor is strong or weak. If labor is relatively strong than we are in upper branch of Figure 4, on the other hand if labor is relatively weak then we are in the lower branch. With imperfect information management can not tell whether labor is strong or weak so it can never be certain that if it defects against labor whether labor will both file or file and strike possibly pushing the two players towards their worst outcome. The converse is true for labor. Management’s preferences are \( y_1 > x_1 > z_1 - c_1 > z_1 - c_1 - s_1 \). Labor’s preferences are \( x_2 > z_2 - c_2 > y_2 > z_2 - c_2 - s_2 \). Mutual cooperation \((x_1, x_2)\) and mutual defection \((z_1 - c_1, z_2 - c_2 \) or \( z_1 - c_1 - s_1, z_2 - c_2 - s_2)\) are the three equilibria. The key to understand why one equilibrium is more likely to occur over another hinges largely on the perceived value of probability \( p \), but it also depends on the values of \( c \) and \( s \).
What this model then suggests is that a few major factors will affect both parties' decisions to defect or cooperate and the second party's decision to file or not file against management. These factors are: union density, union membership, the unemployment rate, inflation, political bias of the NLRB, and the nature of the institution itself. The model also suggests that the transaction costs imposed upon labor, management, and government actors to use and sustain the institution of the NLRB should be repaid in increased cooperation, reductions in distrust, and possibly even increases in trust but only if the institution itself remains impartial and if neither labor and management can rig the game. The model thus leads us to consider ways in which the establishment of the institution creates a dynamic among the players that in turn changes the rules and interactions—perhaps in predictable and perhaps in indeterminate ways.

In what follows, we are going to explore some of the potentially testable implications of the model. The first obvious and testable implication is that the creation of a new agency by government obviously carries relatively high initial start-up costs, to the public that pays through its taxes and to the parties who must invest in learning how to use the new arrangements and may even have to hire intermediaries, such as lawyers or other specialists.

A second implication has to do with the initiation of filing activity. Filing is more likely to be initiated by the weaker party or the party that is most likely to have to react to a possibly illegal action. Unions tend to fit both of these criteria more than management. Unions tend to have the weaker bargaining position and are more likely to be put in the position of the second player in a filing game by the nature of the institutional and
organizational obstacles they face in gaining recognition or calling a legal strike. Thus, we expect that unions will initiate more unfair labor charges than management.

A third implication addresses the possible bias of NLRB decisions. Filing activity is likely to be dampened if staff filtering decisions consistently work against one particular party over the other. Dismissal of cases by NLRB staff, we believe, provides information to potential filing parties on the probability of a successful and favorable resolution. For example, we expect that when employers face higher dismissal rates they are less likely to file future cases than when they face lower dismissal rates. Similarly, if dismissal rates are in decline we expect filing activity to be enhanced. A further implication is that there will be temporal variations in filing activity that reflect the combination of the relative bargaining power of the parties and the nature of the institutional arrangements themselves. It is useful to digress here for a moment. We initially assumed that the NLRB is an institution that literally attempts to arbitrate differences among the key actors and to impartially enforce the law, which would mean an inverse relationship between unions and employers in terms of filing activity; the weaker party would file more was our first intuition and one we continue to explore. However, the NLRB is subject to a myriad of influences, including those described by Moe and Flanagan. Moreover, both the relative bargaining power of labor and management and their presentation of misinformation about that power should affect the equilibrium outcome. Flanagan and Moe expect (and find) a long-term equilibrating tendency towards statistical parity in the filing of unfair labor practice charges by employers and employees, but they explain what they characterize as short-term shifts differently than we do. For Moe, these shifts result from changes in the probability of success as determined by shifts in the composition of the Board and by inflation and unemployment. For Flanagan, there will be an increase in charges by workers when there is high employment, and there will be reduced compliance by employers in conditions of high unemployment. Whereas Moe emphasizes the biases of the staff, we emphasize the bias of the rules. Whereas Flanagan emphasizes the incentives created by structural factors, we emphasize the relative bargaining power of the parties.

With Moe and Flanagan, we expect an equilibrating tendency over time with temporary shifts, but combining our expectations from the comparative statics that emerge from our game models and the expectations that emerge from our understanding of transaction cost and institutional theory, we derive the following testable implications:

1. There will be a sharp early increase in costs to all parties as the NLRB is established.
2. Unions will initiate more charges than management, ceteris paribus.
3. A decline in the bargaining power of a party will lead to a rise in the filing activity of that party as a means of enhancing its bargaining power, ceteris paribus.
4. A clear bias in dismissal rates by NLRB staff will influence filing behavior in a negative manner.
5. The effect of structural variables on the initiation and level of filing activity should differ within different time periods that reflect major rule changes in the NLRB.
6. Over time, if the NLRB provides a level playing field, the institutionalization of labor-management conflict through the NLRB should reduce the net costs of workplace conflict to the parties and the public.

There are other potentially testable implications of the model that we do not address here, given the lack of any plausible measures. For example, it is evident that changes in the costs and reliability of information about each other's relative strength should affect the
strategies of the parties. However, we have no means to assess either the costs or the credibility of the information at this point in time.

The NLRB as an institution meant to ameliorate distrust is subject to exploitation when there is significant power imbalance between the two key parties. This implies that there should be considerable variation in the timing and extent of reliance on the NLRB by the two parties, labor and management. Moreover, it implies that the volume of unfair labor practice cases filed will both reflect and create changes in the degree of distrust and thus should have consequences on productivity and other behaviors within the firm. To the extent the NLRB raises the transaction costs of labor-management relationships without producing Pareto superior outcomes, it has failed to achieve its purpose. Once we have explored what the costs actually are and with what their increases and decreases correlate, we shall return to the larger ramifications of our findings. In particular, we shall attempt to answer questions raised by our line of reasoning concerning the transaction costs of ameliorating distrust: Do the benefits from ameliorating distrust outweigh the transaction costs of achieving this end? Is such a claim measurable? How suited is the NLRB—or any institution—to ameliorating distrust?

EVALUATING THE HYPOTHESES

Our model and concerns lead us to look at data that Flanagan and Moe did not. Whereas they wish to explain the variation in the volume of litigation, that is only one of our measures of the transaction costs of the NLRB as an institution to ameliorate distrust. We also wish to assess the absolute level of transaction costs over time and whether the transaction costs of the NLRB as an institution represent dead weight loss or productive uses of public resources. Thus, we also measure changes in the personnel and budget of the NLRB. In our preliminary effort to determine the relative costs and benefits of the NLRB, we shall consider such factors as person days lost in work stoppages, the forms for reaching agreement over unfair labor practices, and, to a limited extent, productivity. This will be a highly speculative discussion but will, hopefully, point to the kinds of empirical research and theoretical development required to assess the transaction costs created by an institution such as the NLRB.

Our dependent variable is the change in the transaction costs of institutions of labor-management relations as measured by the trends in caseload, personnel and budget of the NLRB. Our independent variables include: political factors, particularly the party of the president and NLRB staff filtering decisions as a measure of political and institutional bias (Moe 1985); economic conditions, most importantly inflation and unemployment (Hibbs 1976, Flanagan 1989) that affect the relative "strength" of unions and management; and other aspects of labor strength including union density and union membership.

In evaluating our first hypothesis, we will briefly consider trends in caseload, personnel and budget of the NLRB. The empirical expectation is a sharp early increase in litigation, personnel, and the budget of the NLRB in its first years as the weaker party, labor, begins to make use of the new machinery. After the initial increase, we expect a leveling off as both parties, labor and management, file cases that are more meritorious and genuine in their motive.

Our second hypothesis requires only an interocular trauma test: Does it hit you between the eyes? There is either more union filing than employer filing, or not.
The third hypothesis rests on measures of labor strength and institutional bias. Measures of labor strength are union density, high employment (Hibbs 1976), and, following Moe (1985) a political and legal climate favorable to labor. The measures of employer strength are high unemployment, low inflation, and a political and legal climate favorable to business. There are a number of reasons why these measures are pertinent in measuring relative strength of labor.

First, economic conditions can affect the manner in which labor and management interact. Inflation can increase the pressure on management to keep costs low; at the same, high inflation may encourage workers to fight for higher wages as the value of their salary declines. High unemployment can also affect the quantity of cases submitted to the NLRB. For example, in times of substantial unemployment, management may submit additional cases to the NLRB to exacerbate labor’s problems, thereby strengthening its power in relation to labor. Similarly, both labor and management may send cases to the NLRB during a work stoppage as a way to force the opponent to divert resources away from the strike toward defending their case to the board.

Second, the degree of union density also may alter the propensity of unions and management to submit complaints to the NLRB. We expect both parties to rely upon an independent institution such as the NLRB when they are at a disadvantage. As total union membership in the workforce declines so should labor’s power in relation to management. Therefore, we expect to see more cases sent to the NLRB by labor in periods of low union membership as a way of compensating for its weakened bargaining position. For the same reasons we expect labor to file cases more readily during periods of low union density. In contrast, if management is weakened because of a high degree of union density, then it may rely upon the NLRB to improve its position and thus file cases against labor.

Our fourth hypothesis requires us to measure the effect on filing activity of any observable bias in the NLRB staff filtering decisions. We believe dismissal rates by the NLRB staff is one such measure of bias provided to potential filers. This information allows the potential filers to estimate rough probabilities that their case will be successfully resolved.

Our fifth hypothesis requires periodicity of the institution of the NLRB. Drawing on the history of legislative and case law that seemed to alter the rules governing labor-management relations (Raza and Anderson 1996; Gold 1998), we established four major periods: (1) from the establishment of the NLRA (1935) until the passage of Taft-Hartley (1947); (2) from the passage of Taft-Hartley (1947) until the passage of Norris-LaGuardia (1959); (3) from the passage of Norris-LaGuardia (1959) until the election of Ronald Reagan (1980); and (4) from Reagan's election (1980) until the present. Since only workers could file unfair labor practices until 1947, we shall focus primarily on the last three periods for understanding the effect of bargaining power on filing activity. However, for understanding the last hypothesis, period 1 also is important. The full evaluation of the fifth hypothesis will be the subject of a future paper (Moe, forthcoming). Due to changes in methods of data recording at the NLRB and due to a lack of some measures up to the late 1990s, testing this hypothesis will be postponed until further data are collected and made consistent across the above time periods.

The evaluation of our sixth hypothesis is also tentative. We address whether the net costs of labor management relations are in relative decline and whether clear benefits arise out of institutionalizing conflict in an arena such as the NLRB. We do not measure the
actual costs against the counter factual of no institution at all; rather we estimate the benefit, that is public goods, of regulating conflict by means of the NLRB.

**ANALYSIS AND FINDINGS**

The analysis section is composed of three parts. In the first section we discuss the absolute transaction costs, outlining the basic trends in caseload, budget, and personnel of the NLRB. In the second section we examine the influences on the transaction costs, paying particular attention to factors that influence filing behavior at the NLRB. In the third section we evaluate the possible benefits of the rising transaction costs of labor management relations.

All data on the National Labor Relations Board were obtained from the Annual Report of the National Labor Relations Board. We first focused on total cases received by the NLRB from 1948 to 1997 detailed in Table 1 of the Annual Report. Each table describes the number of complaints filed by each party: national unions, local unions, the AFL-CIO, employers, and individuals. In addition, we also aggregated and analyzed data from Table 7, which describes, in detail, each category of unfair labor practice case since 1965. With the total number of cases received by the National Labor Relations Board established as an initial base for evaluating transaction costs, data regarding the personnel levels and budgetary allocations of the NLRB were then obtained from the Budget of the United States Government.

**Trends in Transaction Costs**

Our initial findings concerning the basic trends in transaction costs of labor management conflict were both consistent and incongruent with our expectations. First, it is apparent that the budget and the number of cases submitted to the NLRB generally have increased over time (see Figure 4). Second, what is more surprising is that personnel levels consistently increased into the late 1970s and then steadily decreased into the late 1990s. The increase in budget and caseload suggests that the board has become more institutionalized since its inception, indicating higher transaction costs for labor management interaction. The decrease in personnel levels in face of budgetary and caseload increases could suggest a turn towards greater efficiency in the NLRB organization as a whole. More likely, however, this decrease could be indicative of the political climate of the time (the Reagan—Bush years) when most government funded organizations witnessed cutbacks in personnel and budgetary outlays.
While the data generally indicate an increasing trend in the total number of cases filed at the NLRB, analyzing the source of the filing party of unfair labor practice cases reveals some interesting results. Figure 5A indicates that union filed cases have tended to increase steadily over time, except for a small decrease in the early 1980s and a rapid increase in the 1990s. Individual filed cases followed a similar pattern as union filed cases through the early 1980s, but, instead of increasing into the 1990s, they remained relatively constant from the mid 1980s till the late 1990s. In contrast, the number of cases filed by employers steadily increased from the mid 1940s, peaked in the late 1970s and experienced a steady decline thereafter (see Figure 5B). Clearly, in relation to labor, employers initiate far fewer unfair labor practice cases at the NLRB. This supports our initial expectation that labor, the weaker party, will be more active and more readily make use of the NLRB.
Figure 5a: Unfair Labor Practice Cases Filed at the NLRB (1944-1998)

Figure 5b: Employer Filed Unfair Labor Practice Cases (1948-1997)
Finally, there is the issue of litigation costs to both the filing and defending parties. Filing complaints and defending against those complaints involves myriad costs ranging from the simple transaction costs of completing the necessary paperwork to more complex (and high-priced) costs of hiring lawyers to either defend or make charges against opponents. Compiling and collecting accurate data on the ‘private’ costs of litigation is beyond the scope of this paper. A more thorough analysis would attempt to generate estimates of this type. At this point it seems reasonable to assume that both labor and management bear considerable private litigation costs directly related to increased levels in the caseload at the NLRB and that these costs, too, have risen over time.

**Influences on Transaction Costs**

Examination of the raw data suggests that the decline in union membership in the 1980s is correlated with a sharp increase in the number of cases sent to the NLRB by labor. The increase in union sponsored cases in the 1980s confirms our expectation that a weakened position of organized labor will precipitate an increase in total cases filed by unions. Conducting a linear regression analysis using the unfair labor cases submitted to the NLRB as the dependent variable adds some support to but also detracts from our earlier hypotheses. When employer initiated unfair labor practice cases are used as the dependent variable the following results emerge. (Table 1). Inflation, unemployment, and union membership produce a positive and statistically significant relationship with the dependent variable, employer initiated unfair labor practice cases. This lends support to our earlier claim that during inflationary times, management and employers become more willing to file cases against labor. On the other hand union density, Republican leadership, and NLRB staff dismissal rates produce a negative and significant relationship to employer filing activity. Our initial expectation was that as union density increased so should filing activity on the part of employers. Clearly, our results suggest this is not the case. In fact, greater union density appears to dampen filing on the part of employers, while greater union memberships appears to enhance filing activity. In addition, our attempts to predict political and institutional bias also produced mixed results. We found evidence against our prediction that a positive political environment for business will promote filing on the part of employers. In our analysis, we found that a Republican administration will tend to dampen filing activity by employers. On the other hand, we found evidence to support our prediction that greater dismissal rates of employer filed cases will tend to dampen filing activity.
Changing the dependent variable to labor initiated unfair labor practice cases produces very similar results in comparison to the earlier regression. (Table 1) As in the previous regression, inflation and unemployment are positively related to the dependent variable, labor filing activity. On the other hand, union density and republican leadership has a negative influence on labor filing activity. This would lead us to believe that the number of labor filed unfair labor practice cases is influenced by the degree to which unions permeate the workforce. That is, in periods of low union density, labor becomes more active in filing charges; while in periods of high union density, labor becomes less active. The results from this regression also add support to our claim that a stronger relative position of labor should be accompanied by a decrease in filing activity by labor at the NLRB. Interestingly in both regressions, a Republican President had a negative influence on filing behavior. This presidential effect strengthens our claim that a Republican President would dampen filing activity by labor, but given that a Republican President also dampens employer filed cases any conclusions drawn from these results should be tentative.

What is particularly interesting from the regression results (Table 1) is that all the statistically significant independent variables have the same sign, positive or negative, regardless of the dependent variable chosen. That is, the variables we modeled influence filing behavior of both parties in the same direction; but, as recorded, they have differential effects on the filing behavior of each party. Because this is does not totally reflect our original expectation, it has led to additional concerns and possibilities. Perhaps our model is underspecified. That is, have we erroneously left out an independent variable that also has a major influence on filing activity by one or more parties? We believe this not to be the case and we believe that these inconsistencies will be reconciled with a more thorough
analysis that attempts to control for period effects. While we find that most of our measured structural factors influence both parties in the same manner over the long run, over the short run we expect to see similar structural variables having a distinct and separate influence on the filing behavior of each party. Along these lines, we also believe that institutional changes may ameliorate distrust in the short run but may exacerbate distrust in the long run. In the short run strategic actors tend to adjust their behavior to match the new institutional rules, but in the long run--as information becomes clearer and new avenues emerge that allow actors to circumvent the official institution--they adjust their behavior to work around the new institutional rules. We will say little more about this until additional research is conducted.

A final statement must be made regarding the regression results from Table 1. As indicated our strongest results are found when we use employer filed cases as the dependent variable. The Durbin Watson test also indicates that the results from regression 2 are more reliable than regression 1, which tests the independent variable, labor filed cases. The low score on the Durbin Watson test for regression 1 suggests we can not rule out some collinearity amongst the independent variables. While transforming some of the independent variables could eliminate this concern, we preferred to maintain the variables in their raw unaltered form. Our only transformation was to lag the presidential variable by one year. This allows time for newly appointed Board members to make their way into and begin to influence the NLRB apparatus.

**Benefits from the Investment in Transaction Costs**

After examining the variables that influence labor and management transaction costs, we then consider the degree to which the NLRB facilitates labor management cooperation in general. More specifically, we wish to say something about whether the increasing transaction costs that we have documented ameliorate labor management discord. To measure increasing discord or accord we collected data on the method and stage of disposition of all unfair labor practice cases. There are four main methods of disposition of unfair labor practice cases listed by the NLRB: (1) Agreement of the parties, (2) Withdrawal, (3) Dismissal, and (4) Compliance with judicial or board decisions.

Agreement of the parties involves a resolution of the problem before the case reaches the board level. In these situations, the cases are not ‘withdrawn’ but rather ‘resolved’ between the parties in question. A withdrawal of a case is a situation where a party completely retracts the case that has already been filed and it is assumed that no resolution has occurred. A dismissal of a case occurs at the staff level at the NLRB. When a case is dismissed it is deemed not worthy by the staff to be heard at the board level. Of course, no resolution occurs in these situations. Finally, compliance refers to the few situations when a case is ‘decided’ upon at the board level and each parties are compelled to abide by the board decisions. Table 6 presents the trends in these four methods of disposition from 1965-1997.
Figure 6 indicates that agreement has increasingly become more common as a method of disposition; there has been a more or less a steady increase from the early 1970s. Moreover, both the frequencies of withdrawal and of compliance have decreased steadily as a method of disposition. The rate of dismissal, on the other hand, has increased through the late 1970s and has remained consistent until the early 1990s only to experience a considerable decline after 1994. These trends suggest that even in the face of increasing transaction costs, as reflected by total caseload, labor and management are settling disputes by agreement more frequently. In fact, by 1995 agreement had become the most common method of disposition. More interestingly, fewer cases are being resolved by reference to board or higher judicial decision-makers. This trend suggests that labor and management are resolving disputes at a lower level—preferring to reach agreement or withdrawing their complaint all together. Finally, the fact that withdrawal has seen a steady decrease as a method of disposition may indicate that the NLRB is being used more often as an organization to settle disputes rather than a tool for labor to harass management or vice-versa. Put another way, rather than filing false or disingenuous charges that are quickly withdrawn, both labor and management may be becoming more genuine in the official charges they are bringing to the table.

Finally, looking at data on work stoppages and days idle as a percentage of working time (Figure 7) reinforces our claim that there are benefits to the observed increase in transaction costs in labor management relations. Although there is considerable variation across time in both days idle and work stoppages, these measures in the long run trend downwards. From the early to mid 1970s both measures have dramatically decreased
through to the late 1990s. This could suggest that labor and management conflict has decreased over time, but more likely—with evidence drawn from the NLRB data—it suggests that labor and management are finding alternative venues and methods in order to settle their disputes. In other words, labor and management are increasingly finding that disputes are better settled through official arbitration than by strike activity. This would also lend support to our contention that the increased transaction costs that we have documented can and should be considered a ‘good’. That is, clear benefits have accrued for both labor and management in spite of the fact that their relationship is characterized by increasing transaction costs.

Our final measure of benefits from this investment in transaction costs is by far the most speculative. There is reason to believe (Freeman and Medoff 1984, chapter 11; also see Gordon 1996) that unionization brings productivity gains to the firm and for precisely the reasons we suggested at the beginning of this paper. Unionization appears to improve industrial relations by ameliorating the sorts of distrust that blocks cooperation. The history of United States labor relations makes apparent the importance of the NLRA, the NLRB, and other labor laws and institutions in enabling workers to unionize. Thus, if this were the whole story, it would be possible to infer that there is a clear Pareto superior outcome to the transaction cost investments the NLRB requires. However, there is also reason to believe that unions, although they clearly raise the income of workers and may even contribute to a healthier economy, do lower profitability (Freeman and Medoff 1984). More evidence and analysis may help clarify the extent of the union effect on profitability, but in the end there is most likely a trade-off of the sort better left to normative than positive analysis.
CONCLUSION

We started with issues of trust and distrust between labor and management, and it is to those issues we return at the end. Once again, we conclude that trust is not necessarily the solution to the problem of ameliorating distrust; institutions offer a compelling functional alternative. If institutional arrangements, such as the National Labor Relations Act and National Labor Relations Board, can in fact ameliorate distrust, as our evidence suggests they might, and if the amelioration of distrust does in fact produce Pareto superior outcomes, then the public, labor, and management investment in them is well worth the cost.

There is an additional implication of our argument that also deserves further consideration and research. The reason the NLRB may ameliorate distrust is not only because it provides third party enforcement but also because it contributes to the creation of a more level playing field. This in itself may produce trustworthiness that facilitates cooperation between labor and management—a proposition worth further exploration. Without the NLRB, the imbalance of power between the individual worker and her employer can be overcome primarily through collective action. However, when the NLRB ceases to play that role and becomes ineffectual or develops a bias towards business interests, the door is open to the kind of considerable employer resistance to unionization we are witnessing today (Bronfenbrenner and Juravich 1998; Cohen and Hurd 1998). Labor no longer perceives management as trustworthy in its likely treatment of employees, and industrial relations deteriorate.

The standard economist account of the role of trust is closer to Williamson's (1993) than ours, but we hope to have added fuel to fires flamed by Arrow (1974), Dasgupta (1988) North (1990), Coleman (1990) and other social scientists who recognize the important role trust and trustworthiness can play in a wide variety of economic relationships. More significantly, we hope to have clarified how distrust catalyzes institutional emergence and change while also suggesting how those institutions can both ameliorate and create distrust.
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APPENDIX

Data Sources

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1 This view of distrust draws on Hardin (1998).

2 This is the argument Miller (1999) makes in its critique of principal-agent theory.

3 Please see the appendix for details regarding data sources.

4 The category ‘union’ filed is the sum of the three categories (1) AFL-CIO, (2) Other national unions, and (2) other local unions taken from Table 1 of the Appendix in the *Report of the National Labor Relations Board*. 