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Challenged Ballots in U.S. Union Representation Elections

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<Abstract>

In this paper we consider the determinants of challenged ballots in U.S. union representation election. Though there are studies of the union representation election process and the outcomes of these elections, analyses of the balloting process are rare. Our empirical focus is upon two unions, the United Auto Workers (UAW) and International Brotherhood of Electrical Workers (IBEW), and the local or community determinants of challenged ballots. This approach reflects the institutional context and the geographical scale of representation elections. Based upon the results of regression analysis for economically contrasting two years of 1978 (boom) and 1982 (worst recession since the Great Depression), it is argued that the institutional setting of an election (including unit size and competition between unions for representation) is very important for understanding the determinants of challenged ballots.

<요 약>

이 논문에서는 미국에서의 노동조합 대표권 선거에서 나타나는 무효표의 처리과정과 무효표수에 영향을 주는 요인을 분석한다. 노동조합 대표권 선거과정과 결과에 관해서는 많은 연구가 있으나 투표과정에 대한 연구는 매우 드물다. 이 논문에서는 미국 철강노조와 전자노조의 대표권 선거과정에서 나타나는 무효표의 수가 어떠한 요인에 의하여 결정되는가를 선거와 관련된 각 노동조합 내부의 제도적 변수들과 회사가 위치하고 있는 지역의 경제상황 변수 그리고 법적 규제 등의 변수를 독립변수로 하여 회귀분석하였다. 회귀분석의 결과, 두 노동조합 모두에서 제도적 변수들은 무효표의 결정에 일관적으로 영향을 주는 반면, 경제변수들은 노동조합에 따라 그리고 국가경제의 부침에 따라 매우 다른 영향을 준다. 이러한 결과는 노조대표들이 지역경제상황에 따른 일관성있는 선거전략을 세우고 집행하는 데 어려움을 주게 되어 궁극적으로는 노조원확보전략에 차질을 가져오며, 노조대표권에 대한 고용주의 소송을 증가시키는 요인으로 작용한다.

1. Introduction

Union representation elections are the life blood of the U.S. labor movement. Local plant-level elections are the formal mechanism whereby unions add new workers to their membership rolls (and increasingly, the means whereby employers decertify union representation). The representation election process is one of two vital determinants of the flow of membership in and out of unions, the other vital determinant being the economic performanace of firms, their industries, and the nation. Recent plant closings in highly unionized industries like autos and steel have drastically cut overall rates of U.S. unionization just as declining union win rates in representation elections have cut the flow of new members to unions (Clark, 1989).

Like partisan political elections, representation elections are subject to many different types of campaign strategies and electioneering practices. And like partisan elections, especially congressional and state legislative elections, representation elections involve local issues more so than national or even international issues (compare Taylor and Johnston, 1979 with Clark and Johnston, 1987a). Local issues may be systematic across local elections when they involve issues like wages and employment practices (in representation elections), but may be non-systematic when they involve issues like leadership, personality, trust and belief. In recent years, there have been attempts in electoral studies to give these local effects greater significance compared to traditional emphasis on national effects (see Kieweit, 1983 for an example).

At another level union representation elections are quite unlike partisan political elections. Unions, management, and government, as well as communities, monitor very closely the local union representation election process. Dispute over the conduct of representation elections is so pronounced that there has been an explosion of litigation over the election process, quite unmatched at the any scale in partisan political elections (Flanagan, 1987). The integrity of the balloting process has become a significant point of dispute between unions and management, mediated (with less success than many would like; see Morris, 1987) by the National Labor Relation Board (NLRB).

There have been many studies of the determinants of union representation election outcomes, though most use aggregate national data which do not differentiate between unions or places (see Heneman and Sandver, 1983 for an extensive review). Studies of the conduct of representation elections and the electoral performance of specific unions in relation to local economic variables are very rare (Clark and Johnston, 1987c is an exception). This paper analyzes an important but neglected dimension of the union representation electoral process; the nature and local economic determinants of challenged ballots. Our goals are to describe the geographical patterns of challenged ballots, and analyzes the systematic relationships between challenged ballots and local circumstances.

Based upon previously collected data on the electoral performance of the International Brotherhood of Electrical Workers (IBEW) union and the United Auto Workers (UAW) union for two years 1978 and 1982 (Clark and Johnston, 1987a), and

data collected from the NLRB, we analyze the relationships (across elcetions) between challenged ballots and local circumstances. 1978 is the boom year and 1982 is the worst recession since the Great Depression. Therefore, the two years were selected as the reference point years showing the effects of the contrasting national economic situations on the union representation elections. Non-systematic local circumstances may be vital in determining challenged ballots even if the regression methodology of this particular paper can not accommodate such purely local effects. Nevertheless, understanding these systematic cross-election local effects may be important contribution to public policy and the organizing strategies of the union movement.

2. Union Representation Elections

Over fifty years ago, the Wagner Act became the national labor policy of the U.S. and the NLRB became the independent administrative agency responsible for the interpretation and application of the Act.[1] Wagner is reputed to have often commented that the NLRA was designed to "make the worker a free man," providing a framework whereby management and labor could resolve their mutual problems through a system of self-government. Although Wagner believed that the "denial of primary industrial liberty" was the underlying cause of many strikes, particularly violent strikes, he considered the advancement of economic and social justice rather than the reduction of industrial strife to be the primary objective of the Wagner Act (Gross, 1985).

While conceived as a radical blueprint for a system of industrial democracy designed to mimic political democracy (Clark, 1989), over the years its "radicalism" has been blunted by judicial interpretation, legislative amendments, and management opposition (see Klare, 1978 for an historical treatise on the topic). Perhaps because of changing public attitudes toward organized labor, perceived abuses of power by some labor leaders, and massive unionization of millions of unskilled workers in mass-production industries during the war years, the Taft-Hartley amendments to the act were passed in 1947.[2] The preamble of the NLRA was modified to "balance" the responsibility for industrial strife and disruption to interstate commerce between labor and capital. The rights of employees to reject union representation were expressly detailed, and a provision introduced to allow states to regulate closed-shop agreements.[3]

Based upon the amended act, the NLRB has the responsibility for conducting union representation elections. The administrative machinery of the agency is divided so that

1. Known as the National Labor Relations Act (NLRA) of 1935, as amended 29 USC 141-144, 151-187 (1982). Mills and Brown (1950) and Bernstein (1950) provide useful historical accounts of the origins of the act and its evolution through to the Taft-Hartley amendments of 1947.
2. Known as the Labor-Management Relations Act of 1947, as amended 29 USC 141-144, 151-157 (1982).
3. Section 14(b) of the NLRA-the so-called right-to-work (RTW) provision. In reponse, a large number of southern and southwestern states immediately passed RTW legislation, and by 1988 20 states had such legislation in force.

the Office of General Counsel, which in effect is an independent unit, handles investigatory and prosecutorial functions, and the five-men Board performs quasi-judicial review functions (Sherman, 1972). In 1961, the Board delegated most of its powers with respect to the conduct of elections to the regional directors.

A petition for a representation election may be filed with the relevant regional director by an employee, a group of employees, a union, or an employer. The regional director investigates the petition to determine the appropriateness of the proposed electoral unit, and ensures that there is sufficient employee interest in union representation to justify an election.[4] If these and other conditions are met, an election is ordered. Usually the election is held according to a method agreed upon by the parties. If the parties can not agree, matters of dispute are resolved by the regional directors in a special hearing.

Typically there are two types of elections; those based upon a consent agreement between the parties and those based upon a stipulated agreement (Schlossberg and Scott, 1983). These two types of election agreements are similar, except that in consent agreement elections the regional director decides all issues arising from the conduct of the election (including challenged ballots), whereas in stipilated elections the parties can appeal the conduct of elections to the Board. In most cases, employers are now opt for stipulated elections since this type often involves significant delays in the adjudication of disputes (Weiler, 1983). Although both parties must agree to the type of election, unions usually accept employer's preferences because dispute only further delays the electoral process (Swann, 1980).

3. Rules Regarding Challenged Ballots

Elections are supervised by the NLRB, and are ordinarily held at the employer's site of operation. An election involving a union and an employer is decided by a majority of the votes; the union must gain marginally more than 50 percent to win representation (a 50-50 percent split vote is counted as a union loss).[5] Both the employer and the union are entitled to have non-supervisory workers present as observers at the election to see that only eligible employees vote. The losing party can file objections charging irregularities in the electoral process and may challege particular ballots. If successful, a challenge could invalidate the election result and lead to a new election.

If an employee's status as an eligible voter is questioned by either the employer or the union, then his/her ballot may be challenged by observers.[6] Challenges must be

4. In cases of union petition or individual petition, the Board requires a 30% showing interest among the employees in the unit.

5. However, in cases where more than one union is involved so that it is not an election about representation per se, so much as an election for a particular union, the union with the most votes wins.

6. For an account of the behavior and responsibilities of observers as well as the relevant NLRB regulations, see Williams (1985, 383-397).

made before the employee votes, usually at the time the employee approaches the observers' table to give his/her name and to obtain a ballot. A ballot that has been challenged is inserted into a special envelope which the voter signs and is then deposited in the ballot box. At the election site, challenged ballots are tallied. Most frequently, the tally of unchallenged ballots determines the election; typically challenged ballots are insufficient in number to affect the results of an election. Challenged ballots such cases are never resolved; union representation is certified on the tally of unchallenged ballots (Schlossberg and Scott, 1983).[7]

Generally ballots are challenged in two kinds of circumstances: in disputes over the eligibility to vote of certain employees; and when there are violations of the Board's Rules and Regulations regarding the format and implementation of representation elections that affect the balloting process. According to labor lawyers who handle union representation elections, the NLRB regulates the conduct of these elections by stringent interpretation and administration of its rules and precedures. Even if infractions of rules are very minor, the NLRB will accept objections rather than reject them and face later litigation over the outcome of the election. By the "good-faith" clause of the NLRB's Rules and Regulations (section 102.69(a)), any party and Board agents may challenge voters who have supervisory status, are not within the appropriate unit, were discharged or quit prior to the election date, or are related to manager or owner.

Since employers prepare voter eligibility lists, employer-challenges are less likely than union-challenges. This is a general rule accepted by most commentators on representation election procedures. Unfortunately, the NLRB does not record the origins of the challenged ballots. When disputes like the make-up of a bargaining unit are not resolved and when a party withdraws from an agreement as to the eligibility of employees, the number of challenged ballots tends to increase.[8]

Rarely are challenged ballots sufficient to affect the outcome of an election. This general observation is illustrated in Table 1 with respect to the experience of the UAW and the IBEW in 1978 and 1982. Only one election result could have been overturned on the basis of challenged ballots in 1978 and 1982 for the IBEW and 1978 for UAW. In 1982 the UAW had two elections whose results could have been overturned by challenged ballots.

7. Notice that in cases where challenged ballots are important it is up to the regional director, perhaps even the Board, to decide whether or not to count the relevant ballots. Since the identity of the challenged ballots are known, it is more than possible that each party may guess the vote (for or against representation, or for or against a particular union) once the challenged ballots are counted. For this reason, unions may challenge more ballots than they may think desirable simply to protect the privacy of the voters.

8. The Board has allowed parties to withdraw from agreements and challenge voters in certain circumstances. For more details see Cruise Along Boats, 128 NLRB 1019 (1960).

Table 1. Challenges Issued in the UAW and IBEW Union Representation Elections

Union	1978	1982
UAW	<1> (148) [268]	<2> (88) [142]
IBEW	<1> (108) [235]	<1> (81) [165]

1. []: total number of IBEW and UAW representation elections;
2. (): number of elections in which challenges were issued;
3. <>: number of elections where challenged ballots could have reversed the outcome.

But notice that the number of elections in which ballots were challenged was more than half the total number of elections in both years. Challenged ballots are not so important for their consequences on election outcomes; but it is their number in relation to the total set of all elections that is the problem. The phenomenon of challenged ballots reflects the litigation explosion that has so overwhelmed the representation election process. Challenged ballots are part of the "gaming" strategies that developed in the 1970s.

4. Model Specifications and Variables

As we noted above, in this paper the analysis of the nature of challenged ballots is based upon the electoral performance of the IBEW and the UAW. It is important that the studies of representation elections are sensitive to the performance of different unions in different settings. Too many analyses of unions' performance in the representation elections aggregate across time, space, sectors, unions, and situations (compare Clark and Johnston, 1987b with Hirsch and Addison, 1986).

In this case, these two unions were selected because of their similarities and differences. They are certainly of similar size, and historically have been oriented towards manufacturing industries, as opposed to service industries (Clark, 1989). However, on closer inspection there are major differences between the unions. The UAW is the union of the auto industry. As such, it has represented assemply-line workers in large plant-level bargaining units. Craft designations although informally important in some local unions of the UAW, have not been important to the national political structure of the union. On the other hand, the IBEW is more craft-oriented, and represents workers in much smaller bargaining units, often within quite large enterprises. The two years chosen for analysis are representative of different phases of the national business cycle; 1978 indicated an economic boom whereas 1982 was the worst recession since the great depression.

The paper was designed as an investigation of the systematic determinants of challenged ballots based upon the behavior of competing parties in representation

election procedures, union status, and the different local economic situation. With this premise in mind, we assume that voters behave within the context of different communities, and are subject to the extant economic conditions of the localities and circumstances of the representation campaign and election (assumptions consistent with Dunlop, 1948 and Clark, 1989). Challenged ballots can be considered as a product of both the interaction between the competing parties in local situations and mediation by the NLRB. The institutional context and economic environment of the election are considered as vital systematic determinants of challenged ballots.

Therefore, the number of challenged ballots (CH) is a dependent variable which can be said to be a function of the institutional context of each unit and the economic environment in which the election is held. That is:

$$CH_{it} = f(CONTEXT,\ ENVIRONMENT)_t \qquad (1)$$

where CH_{it} is the number of challenged ballots in the union(i) and year(t).

Context variables are expected to be correlated with environment variables. However, because elections are performed in each unit with its own internal characteristics and the environment is the situations of the local community which can be described in more comprehensive detail, both two categories are useful in explaining challenged ballots. Context variables are defined as internal variables and environment variables can be regarded as external variables in determining the number of challenged ballots in each unit. The independent variables are series of dichotomous and continuous variables.

Begining with a variable that represents the institutional context of an election, RTW is a state-level variable which indicates the presence (=1) or absence (=0) of the right-to-work legislation. Other context variables include WL, ELIG and PARTIC in the model 1 and WL, WVT, LVT, VTA and PARTIC in the model 2. WL indicates a union win (=1) or loss (=0). ELIG measures the size of an electoral unit. PARTIC represents the participation rate of eligible voters. WVT indicates the number of ballots which the primary union obtained in an election, LVT represents the number of ballots which any additional union obtained, and VTA measures the number of ballots which the employer obtained in the relevant election.

On the economic environment side, DAVPAY represents the differences between current and (two year) lagged average payroll of firms in the relevant county and industry. DAVEMP measures the differences between current and lagged average employment of firms in the relevant county and industry. And, RESTAR measures the percentage rate of change of the number of establishments in the relevant county.

Given the generic form of the model as represented in equation (1) and the variables noted above, two exploratory empirical models are specified as:

$$\text{Model 1: } Ch_{it} = f_1(WL,ELIG,PARTIC,RTW,DAVPAY,DAVEMP,RESTAR)_t \qquad (2)$$

Model 2: $Ch_{it} = f_2(WL,WVT,LVT,VTA,PARTIC,RTW,DAVPAY,DAVEMP,RESTAR)_t$ (3)

The models are estimated separately for the UAW and IBEW, and for each year 1978 and 1982; in sum eight estimates of the relationship between challenged ballots and local determinants.

5. Empirical Framework and Hypothesis

It should be readily apparent that the local economic environment varies with industrial structure, production functions, and labor-management relations. Given extraordinary variability in these factors across U.S. regions (Clark, Gertler, and Whiteman, 1986), it is difficult to unambiguously hypothesize the causal effects between local economic variables and the number of challenged ballots. And, given the significance of nonsystematic effects in election campaigns, it is likely that context variables could have a variety of effects. Despite these intangibles, a goal of this paper is to provide an empirical accounting of the patterns of systematic effects. Consequently, it is useful to hypothesize a set of relationships as a reference framework for interpreting our subsequent empirical results.

Employer challenges are rarer than union challenges, since the employer prepares the eligible voter list (Swann, 1980). When preparing authorization cards, unions have a chance to evaluate their likelihood of winning or losing a representation election. If a majority of eligible voters are expected to vote for union representation, it may not pay for the union to organize voters whose eligibility may be subject to employer's challenge. If loss is expected, however, the union may attempt to exclude some voters and include other voters not deemed eligible by the employer in the hope that these tactics improve the union's chance of winning. This may be a quite subtle game, designed to change voters' intentions by demonstrating the power of the union in relation to the employer. We expect that challenged ballots in won elections are smaller than in lost elections, and that WL is negative regardless of local economic circumstance and years.

The size of an electoral unit (ELIG) may have an important positive effect on the number of challenged ballots. The results of an analysis of overall trends in union election activity since 1950 performed by Freeman and Medoff (1984) showed that between 1960 and 1980, the number of elections as a percentage of the labor force, the number of workers included in these elections, and the union's win rate in elections all declined. As a result, the percentage of eligible workers in the labor force that were newly organized per year fell from 1 percent in 1960 to about 0.2 percent in 1980. This rate of unionization produced less than half the number of new members that were needed to offset the rate of attrition experienced during 1970s (Kochan, Katz, and McKersie, 1986).

Clark and Johnston (1987b) found that the size of the electoral unit had a negative effect on union victory. While reduction of the number of eligible voters is expected to

increase the probability of a union win, the probability of challenged ballots is expected to be higher in lost elections than in won elections. Consequently, a large electoral unit tends to lead to union loss, and this may result in a high number of challenged ballots. The participation rate (PARTIC) in representation elections decreases as the size of electoral unit increases because workers in large units are more heterogeneous than in smaller units implying the possibility of greater alienation in the former kind of units. Just because of the complexity of large units we should expect many more challenged ballots. Therefore, ELIG is expected to have a positive impact and PARTIC is expected to have a negative impact on CH.

In larger electoral units, it is possible for two or more unions to compete for representation. In this case, it is plausible that the behavior of the parties to the election will be different than if there was a single union involved. With greater rivalry, between unions or between unions and the employer, the number of challenged ballots should increase. All parties may have an interest in challenging ballots as a way of establishing their own power and offsetting the influence of other parties. Participation of an additional union should lead to more challenged ballots and LVT together with WVT and VTA will tend to be positively related with the number of challenged ballots. In a recession, union organizers are likely to cooperate so as to prevent delays in determining election outcomes (the odds of winning in a recession are low). This may lead to the negative signs of LVT and WVT, especially in the small units. But in an economic boom, it is likely that unions would compete one another (the odds of winning are higher), and thus WVT and LVT are expected to be positive.

The level of unionization of RTW states is much lower than that of non-RTW states and unions' win rates in RTW states have been lower than in non-RTW states (Clark and Johnston, 1987a). This trend is most obvious in the patterns of election results in the IBEW than in the UAW; perhaps because the IBEW is more evenly represented across the U.S. than the UAW which is concentrated in a group auto-related industries located in the heartland regions (non-RTW) of the U.S. Over the past few decades, unions have tried to organize workers in RTW states, as employers have shifted production to these states in order to avoid union representation (Clark, 1989). It makes a considerable difference if a representation campaign is fought in a RTW state as opposed to a non-RTW state. The balance of power between unions and employers in RTW states is held by employers. Thus, it is likely that RTW status will be associated with larger number of challenged ballots.

The local economic environment of an election is described by a series of county-level economic variables. Wages, employment, and job opportunities (as represented by new establishments) are important factors that influence potential union members' perception of the advantages and disadvantages of the union representation (Clark and Johnston, 1987b). In this respect, challenged ballots are a by-product of parties' election strategies coupled with "local" perceptions of the economic environment. Typically, employees appreciate their own economic circumstances based on comparisons between their current and previous situations and the circumstances of

other workers in the local area. They are also sensitive to differences in the levels as well as differences in the rate of change. Here, we use the average wage and the average employemnt in the relevant county and industry. Because of fluctuations in the number of establishments in a county, the percentage rate of change in the number of establishments (RESTAR) is used to measure the changing fortunes of local business.

Although wage levels are uneven between regions and between union locals, money wages and relative wages are relatively rigid and difficult to change in the short-run (Thurow, 1981). Individuals' pay does not tend to fluctuate rapidly despite cost of living clauses which became almost universal in the union contracts since 1974. In response to changing commodity markets, firms tend to adjust hours worked and employemnt in the south, and generally only hours worked in the north before adjusting employment. We assume workers seek to minimize disruptions to income with respect to the time and duration of subsequent booms and recessions (Clark, Gertler, and Whiteman, 1986). Thus any reduction of hours worked leads to lower average pay, as reductions in employment can have catastrophic effects on total pay. In the representation elections fluctuations in average pay may influence the behavior of voters according to the type of the union - IBEW versus UAW.

The above logic about average pay is more plausible in the case of a production union like the UAW than for the IBEW. In Table 2, the average pay for the UAW did not show significant increase through 1976 to 1978 despite an expanding economy. But it increased much more through 1980 to 1982 despite a shrinking economy. These trends may be due to firms' labor adjustment strategies responding to the economic fluctuations. Areas and firms with expanding employemnt may be the target of the UAW union organization strategies, and workers hired prior to an election may be the subject of unions' and employers' campaign tactics. Thus there is a possibility increasing numbers of challenged ballots associated with expanding employment. Thus, DAVPAY is expected to have a negative impact for the UAW in 1978. For the UAW in 1982, DAVPAY would still have a negative sign because of a different reason. In the shrinking economy average pay increased significantly while layoffs reached unparalleled proportions. In this setting we expect that there would be a lower potential for ineligible voters so that in recession DAVPAY be negatively related with the number of challenged ballots.

For the IBEW, the case is a little different from that of the UAW. The IBEW has concentrated on skilled tradesmen in a variety of electrical-oriented sectors located across the U.S. In this union, average pay gradually increased regardless of economic situations. It is due to the increase of wage and hours worked, and also the new employemnt of the highly skilled workers in 1978, but due to the layoffs of the less skilled workers in 1982. The probability of challenged ballots is higher in 1978 due to the increase of the ineligible voters who are newly employed during the economic boom conditions and who are then fired in the recession. Thus, for the IBEW DAVPAY is expected to have a positive impact on the number of challenged ballots in both years.

Table 2. Local Economic Situations by RTW Status, Union and Year

	UAW		IBEW	
	1978	1982	1978	1982
DAVPAY (100$)				
RTW	0.16	0.43	0.18	0.14
non-RTW	0.11	0.38	0.18	0.33
Total	0.11	0.38	0.18	0.30
DAVEMP (persons)				
RTW	8.75	-7.99	-1.73	-4.57
non-RTW	9.40	-15.28	2.21	-5.75
Total	9.37	-14.60	1.46	-5.53
RESTAR (%)				
RTW	7.11	3.56	8.93	3.88
non-RTW	5.69	-0.09	6.24	0.77
Total	5.88	0.30	6.98	1.32

source: author's calculation

Fluctuations in average employment is a good barometer of the conditions of the local economy. Generally, employment increases in boom, and decreases in recession. As stated above increasing and decreasing local employment might lead to the increase of challenged ballots. But it is not always the case that local employment rises in boom and decreases in recession. It is certain that employees and potential union members are more sensitive to reduction in local employment than increase in employment. A high rate of new business establishments in an area is also a good barometer on the local economy. A high rate of new establishments is expected in economic boom, and a low rate is typical of recession. We expect that a high rate leads to increase in local employment, and a low rate may cause declining levels of employment. Both good and bad economic circumstances are expected to influence the number of challenged ballots as indicated above although we are not able to *a apriori* state the precise causal sequence.

6. Results of Estimating Models 1 and 2

The results of estimating models 1 and 2 are presented in Tables 3 and 4. At a glance, it is apparent that institutional context variables are more significant than local economic variables, and varied in terms of their significance with union and year. It is also apparent that PARTIC was significant in both years in the UAW but not in the IBEW, while RTW was significant in the IBEW but not in the UAW. These results are largely consistent with our hypotheses. As shown in Tables 3 and 4, WL is negative in the three equations of both models 1 and 2. In model 1, WL is positive only for the UAW in 1978 but is nevertheless statistically insignificant. In model 2, however, WL is positive and significant for the UAW in 1978. Consistent with our expectations, it is evident that challenged ballots increase in lost elections compared to won elections for both the UAW and the IBEW.

It is found that ELIG is positive and significant in all cases in model 1. It is assumed that challenged ballots are determined by competition between institutions for influence in the election process. Here, WVT, LVT, and VTA are very important in that they imply the aspects of electoral behavior of the participating parties, even if the importance of the variables are lessened because of minor multicollinearity between these variables. All had positive coefficients except a negative VTA for the IBEW in 1978, and two negative LVT for both the UAW and the IBEW in 1982 (albeit insignificant).

LVT measures the ballots obtained by a minor competing union in a representation election. Though it is rare for two or more unions to participate in a representation election in recession, however in a boom the probability increases. A high LVT leads to a high number of challenged ballots, as illustrated in the regression results; LVT is positive and significant for both the UAW and the IBEW in 1978 (boom), but is negative and insignificant for both unions in 1982 (recession).

We also hypothesized that a high participation rate should lead to a reduction in the number of challenged ballots. This is actually the case in the regression results as the PARTIC coefficient is negative in all instances. It is significant for the UAW, but insignificant for the IBEW. Also implied is an argument that the heterogeneity of membership of the two unions is quite different from each other. The UAW is mixed with workers of various skill levels while the IBEW tends to be relatively more homogeneous in terms of skill levels. Electoral units are relatively large in the UAW and relatively small in the IBEW.[9] Of course, the great majority of elections in all the cases have the participation rate of 90 percent or more; the results suggest that these elections have many fewer challenged ballots than elections which have participation rate below 90 percent.

9. Over the 1978-1982 period, the size of a IBEW electoral unit was between 10-19 workers. In contrast the size of a UAW unit was between 50 and 99 workers (Clark and Johnston, 1987a).

Table 3. Estimation results for the UAW in 1978 and 1982

	Model 1		Model 2	
	1978	1982	1978	1982
INTERCEPT	14.610***	4.043**	12.108**	4.635**
WL	-0.273	0.422	2.323**	-1.127
ELIG	0.034***	0.017***		
WVT			0.003	0.057***
LVT			0.088***	-0.004
VTA			0.021*	0.019
PARTIC	-0.176***	-0.041*	-0.158***	0.042*
RTW	0.512	0.024	0.296	0.585
DAVPAY	-0.778**	-0.042	-0.827**	-0.186
DAVEMP	-0.004	-0.002	-0.006	-0.002
RESTAR	0.102	-0.046	0.109	-0.053
R-Square	0.534	0.198	0.590	0.296
F-Value	22.949	2.813	22.083	3.642
Dep Mean	2.721	1.563	2.721	1.563
N	268	142	268	142

* significant at the 10% level
** significant at the 5% level
*** significant at the 1% level

Table 4. Estimation results for the IBEW in 1978 and 1982

	Model 1		Model 2	
	1978	1982	1978	1982
INTERCEPT	1.409	1.348	1.850	1.412
WL	-0.285	-0.276	-0.393	0.305
ELIG	0.025***	0.007***		
WVT			0.048***	0.005
LVT			0.134***	-0.015
VTA			-0.018	0.015***
PARTIC	-0.017	-0.011	-0.021	0.012
RTW	0.995	1.318**	1.214*	1.285**
DAVPAY	1.651	0.141	1.714	0.121
DAVEMP	-0.154***	0.007	-0.157***	0.006
RESTAR	0.027	-0.069*	0.017	-0.065*
R-Square	0.380	0.852	0.413	0.860
F-Value	8.763	60.065	7.652	48.492
Dep Mean	3.560	1.692	3.560	1.692
N	235	165	235	165

* significant at the 10% level
** significant at the 5% level
*** significant at the 1% level

The empirical results show that RTW is positive in all the cases as our hypothesis suggests. However, it is insignificant in the UAW, but significant for the IBEW. This implies quite different nationwide organizing strategies between the UAW and the IBEW, even if the number of challenged ballots is more in the RTW regions than in the non-RTW regions, but the IBEW has been more diversely located.[10] So, the higher numbers of unorganized ineligible voters and a lower participation rate are expected in the RTW states. Cooke (1983) concluded that other things being equal, the probability of an union victory was reduced by roughly 5 percent points when an election takes place in a southern RTW state. This logic supports our results wherein we found positive RTW effects, and negative WL and negative PARTIC effects.

The estimation results with respect to local economic environment variables indicates that significant economic variables vary with the unions and years. The signs of those parameters are little different from our hypotheses, especially for DAVEMP. Our hypotheses about local economic variables were constructed under the assumption that national economic conditions (the national business cycle) affects the relevance of local economic factors. Thus, the estimating results were expected to reveal that national economic conditions were related to the significance of local economic variables even if the diversity of local conditions are such that there may be marked variations between years and unions in the significance and the effects of these variables.

The signs of DAVPAY and RESTAR are consistent with our hypotheses. However, DAVPAY is significant for only the UAW in 1978, and RESTAR has a significant causal effect barely at the 10 percent level only for the IBEW in 1982. Unexpectedly, the signs of DAVEMP are quite different from the hypothesis. Firms' decisions about employment or layoff are highly dependent on local economic conditions rather than the national business cycle. We hypothesized that the icrease of employemnt leads to an increase of the number of challenged ballots. The empirical results imply the exact opposite (except for the UAW in 1982). Moreover, for the IBEW in 1978 it is found that DAVPAY is significant and negative. From this evidence, we conclude that employment at the local level is not coincident to the national business cycle, and it is very difficult to determine a systematic causal relationship between changes of employment and challenged ballots because of the various local effects. We can say that at least DAVEMP for the IBEW in a boom period negatively affects the number of challenged ballots.

7. Conclusion

In this paper, a set of empirical models were developed in which NLRB procedures, state-level labor relations, and local economic conditions were hypothesized to affect

10. In our data, 87.6 percent and 92.2 percent of the elections were held in the non-RTW states for the UAW in 1978 and 1982, respectively. For the IBEW, 73.3 percent and 84.0 percent of elections were held in the non-RTW states in 1978 and 1982, respectively.

the pattern and the volume of challenged ballots in U.S. union representation elections. These models were premised upon an assumption that local institutional conflict - between unions and management and between competing unions - is a vital ingredient in explaining the geographical pattern of challenged ballots. Here, the emphasis was on the structure of the representation process as opposed to the individual attributes of voters. Evidence derived from estimating these models indicates that all of the above factors have some effect upon the number of challenged ballots in different circumstances.

But if we were to judge which set of variables were more important than others, it is clear that the variables described the institutional context of representation elections were more important than the variables that described the local economic environment. Of course, the conclusion is based on an analysis of cross-election systematic effects. In specific elections, there may be very important local economic effects, not captured by the empirical strategy utilized in this paper. Thus the conclusion should not be considered universal, so much as conditional.

Several other observations and caveats about the findings of this paper should also be made. First, the size of the electoral unit (ELIG) plays a positive and important role in determining the number of challenged ballots. Other variables like WVT, LVT, and VTA are related to ELIG also have positive effects on the number of challenged ballots when significant. In this context, it is important to acknowledge that LVT (the number of ballots received by a competing union) is significantly and positively related to the number of challenged ballots in economic boom conditions (1978), but is insignificant and negative in recession conditions (1982). This findings are important fro two reasons. It implies that (a) one source of the litigation explosion in NLRB procedures is competition between unions in representation elections, and (b) in recession when the odds of winning are low, unions are able to rationalize their interests by limiting head-to-head competition.

Another finding is that the participation rate (PARTIC) of eligible voters has a significantly negative effect on the number of challenged ballots for the UAW in both years, but it is insignificant (and negative) for the IBEW in both years. These differences between union electoral performances are important for a variety of reasons, not least of which because they demonstrate the variety of effects between unions rarely considered in most empirical analyses of union representation elections. These differences may be due to the essential attributes of the two unions: The UAW is typically composed of a heterogeneous (by race, sex, age, ethnicity etc.) mix of workers and is usually based on a large unit in a large plant, while the IBEW is more homogeneous and small unit-oriented. The higher the participation rate, the more likely that cleavages within a UAW unit have been accommodated and the vote is consequently more predictably forecasted for a union win. In these circumstances, the union has little incentive to challenge on the ballots.

Third, RTW is found to have a positive effect on the number of challenged ballots. Workers are much less organized and more volnerable to economic circumstances in the RTW states than in the non-RTW states. The chances of winning representation

elections in these states are generally low (Clark, 1989), and are particularly low for these two unions in the two years of the study (see Clark and Johnston, 1987a). Whereas previous studies have made the linkage between election outcomes and RTW status, we are able to derive a new finding; RTW laws are implicated in the litigation explosion and have significant effects on the efficacy of the representation process. This is an important finding since defenders of RTW laws (and defenders of the *status quo*) suggest that the failure of the union movement in RTW situations (and other hostile circumstance) is due to problems within the movement as opposed to the regulatory environment (Getman, 1986). Here the results support those who suggest that RTW status affects the electoral process in terms of not only outcomes to the detriment of unions but management (Weiler, 1983).

A further observation has to do with the relative importance of local economic variables in affecting the number of challenged ballots. It is observed that the effects of these variables vary with the union and the years. Given the diversity of local economic situations and the interaction between systematic effects and non-systematic effects, it should not be surprised that significances and signs of the local economic variables are unstable compared to variables which describe the institutional context of representation elections. Although the local economic situation is very important in determining the behavior of participating parties, there are few significant variables and they vary with the union and the year. For the unions involved this mix of variables' significances and signs must be very troubling. This makes consistent cross-election strategies with respect to local economic conditions difficult to design and implement. These results are also reinforce a common perception amongst union organizers that there is no substitute for local knowledge; the meaning of economic variables are created through dispute and debate. In this sense their effects are non-systematic.

Finally, it should be noted that these results indicate a need for better data on many related issues. The NLRB should collect data on the sources of challenged ballots. Such data would of course help researchers in sorting out the determinants of challenged ballots. This kind of data would also help the NLRB in evaluating the performance of its election procedures in the face of mounting public criticism of the Board and management consultants who are thought to have perverted the NLRB' procedures. Another need is better data on the number of days between the filing an election petition and the conduct of an election. This could well be an important factor in the number and timing of challenged ballots; it may show how election delays influence behavior of the participating parties.

References

Anderson, H.J. and J.K. Kenny (1984), *Premier on Labor Relations*, 2nd ed., Washington, DC: Bureau of National Affairs.

Berstein, I. (1950), *The New Deal Collective Bargaining Policy*, LA: University of

California Press.

Cappelli, P. (1985), "Plant-level Concession Bargaining," *Industrial and Labor Relations Review*, 39.

Carter, M.J. and W.H. Leahy (1981), *New Directions in labor Economics and Industrial Relations*, Notre Dame: University of Notre Dame Press.

Clark, G.L. (1989), *Unions and Communities Under Siege: American Communities and the Crisis of Organized Labor*, Cambridge: Cambridge University Press.

Clark, G.L., Gertler, M.S. and J. Whiteman (1986), *Regional Dynamics*, Boston: Allen and Unwin.

Clark, G.L. and K. Johnston (1987a), "The Geography of US Union Elections 2: Performance of the United Auto Workers Union and the International Brotherhood of Electrical Workers Union, 1970-1982," *Environment and Planning A*, 19. 153-172.

Clark, G.L. and K. Johnston (1987b), "The Geography of US Union Elections 3: The context and Structure of Union Electoral Performance (the United Auto Workers Union and the International Brotherhood of Electrical Workers Union, 1970-1982)," *Environment and Planning A*, 19. 289-311.

Clark, G.L. and K. Johnston (1987c), "The Geography of US Union Elections 4: Patterns of Close Elections and Determinants of the Margins of Victory and Loss (the United Auto Workers Union and the International Brotherhood of Electrical Workers Union, 1970-1982)," *Environment and Planning A*, 19. 447-469.

Cooke, W.N. (1983), "Determinants of the Outcomes of Union Certification Elections." *Industrial and Labor Relations Review*, 36.

Delaney, J.T. Lewin, D. and D. Sockell (1985), "The NLRA at Fifty: A Research Appraisal and Agenda," *Industrial and Labor Relations Review*, 39, 46-75.

Dunlop, J. (1948), "The Development of Labor Organization: A Theoretical Framework," in *Insight into Labor Issues*, R.A. Lester and J. Shister, eds., NY: MacMillan, 163-193.

Flanagan, R.J. (1987), *Labor Relations and the Litigation Explosion*, Washington, DC: Brookings Institute.

Freeman, R. and J. Medoff (1984), *What Do Unions Do?*, NY: Basic Books.

Getman, J.G. (1986), "Ruminations on Union Organizing in the Private Sector," *University of Chicago Law Review*, 53, 45-77.

Gross, J.A. (1985), "Conflicting Statutory Purposes: Another Lokking at Fifty Years of NLRB Law Making," *Industrial and Labor Relations Review*, 39, 7-18.

Heneman, H. and M. Sendver (1983), "Predicting the Outcome of Union Certification Elections: A Review of Literature," *Industrial and Labor Relations Review*, 36, 537-559.

Hirsch, B. and J. Addison (1986), *The Economic Analysis of Trade Unions: New Approaches and Evidence*, Boston: Allen and Unwin.

Hunt, J.W. (1987), *The Law of the Workplace: Rights of Employers and Employees*, Washington, DC: Bureau of National Affairs, Inc.

Kiewiet, D.R. (1983), *Macro-Economics and Micro-Politics: The Electoral Effects of Economic Issues*, Chicago: University of Chicago Press.

Klare, K. (1978), "Judicial Deradicalization of the Wagner Act and the origins of Modern Legal Consciousness," *Minnesota Law Review*, 62, 265-340.

Kochan, T.A., Katz, H.C. and R.B. McKersie (1986), *The Transformation of American Industrial Relations*, NY: Basic Books.

Mills, H. and E.C. Brown (1950), *From the Wagner Act to Taft-Hartley: A Study of National Labor Policy and Labor Relations*, Chicago: Univ. of Chicago press.

Morris, C. (1987), "The NLRB in the Dog House - Can an Old Board Learn New Tricks?," *San Diego Law Review*, 24, 9-50.

National Labor Relations Board, (various years), *Election Report*, Washington, DC: Division of Information.

National Labor Relations Act, 1935, 49 stat. 449, as amended, 29 USC Section 151-166.

Peet, R. (1983) "Relations of Production and the Relocation of US Manufacturing Industry Since 1960," *Economic Geography*, 59, 112-143.

Schlossberg, S.I. and J.A. Scott (1983), *Organizing and the Law*, Washington, DC: Bureau of National Affairs, Inc.

Scott, A.J. and M. Storper, eds (1986), *Production, Work, Territory: The Geographical Anatomy of Industrial Capitalism*, Boston: Allen and Unwin.

Sheflin, N. and L. Troy (1985), *Union Sourcebook: Membership, Structure, Finance Directory*, Industrial Relations Data Information Services, P.O. BOX 226 WOB, West Orange, NJ 07052.

Sherman, Jr., H.L. (1972), *Labor Relations and Social Problems: A Course Book (Unit One, Unionization and Collective Bargaining)*, 2nd ed., Washington, DC: Bureau of National Affairs, Inc.

Taylor, P. and R.J. Johnston (1979), *Geography of Elections*, Harmondsworth: Penguin Books.

Thurow, L.C. (1981), "Stagflation, productivity, and the Labor market," in *New Directions in Labor Economics and Industrial Relations*, Carter, M.J. and W.H. Leahy, eds., Notre Dame: Univ. of Notre Dame Press.

Weiler, P. (1983) "Promises to Keep: Securing Workers' Rights to Self Organization Under the NLRA," *Harvard Law Review*, 98, 351-420.

Williams, R.E. (1985), *NLRB Regulations of Election Conduct*, Labor Relations and Public Policy Series, No. 8, Industrial Relation Unit, Philadelphia: Univ. of Pennsylvania Press.