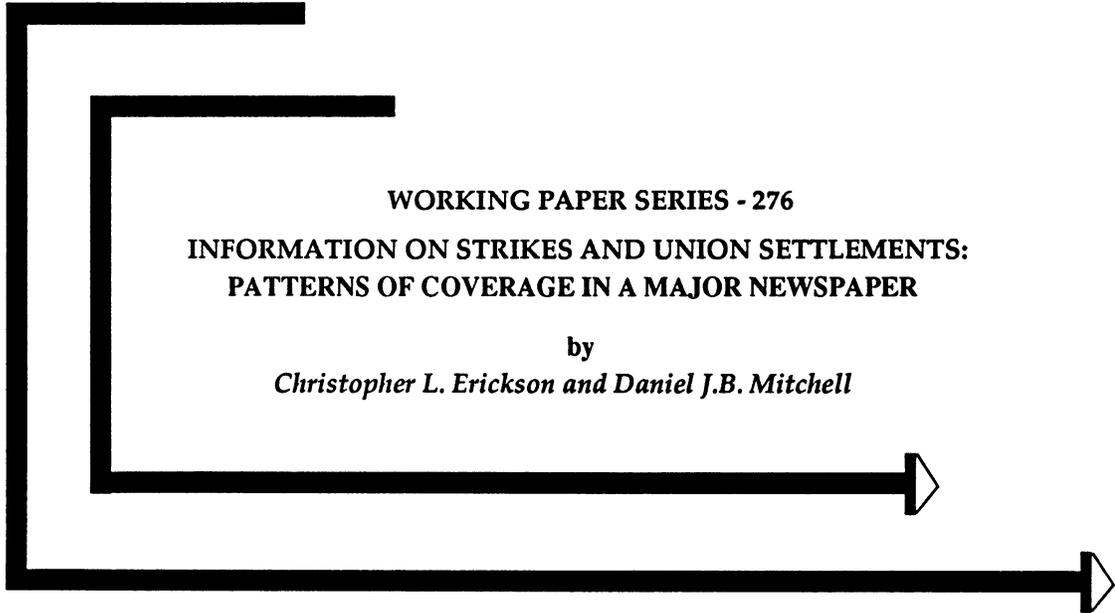


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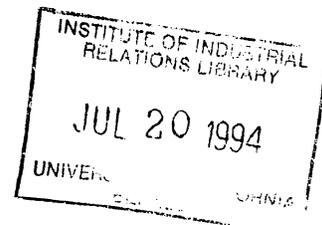


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INFORMATION ON STRIKES AND UNION SETTLEMENTS:
PATTERNS OF COVERAGE IN A MAJOR NEWSPAPER

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Abstract

In recent years, several studies have appeared on media coverage policies regarding union activities. Here, we examine the policies of the New York Times regarding strikes and (non-strike) wage settlements in large bargaining units. Surprisingly, the coverage of such events on a per-event basis did not appear to drop off in the 1980s, once adequate control variables are considered. Important variables determining extent of coverage are strike or non-strike to resolve the dispute, strike duration, number of workers involved, the presence of federal intervention, key industry status, and proximity to New York. These findings are relevant to researchers interested in wage patterns, the effects of union activity on stock market prices, and other areas in which information transmission is important, as well as those interested in biases in union coverage in the media.

Note: Tables, footnotes, references at end of paper.

A variety of information is available in the popular media on activities in the union sector. Information is available, for example, on strikes, on negotiated wage settlements, on internal union political battles, and on union activities in the larger society, e.g., candidate endorsement. Not all union activities, of course, are considered equally newsworthy. Coverage varies in predictable ways with more dramatic events attracting greater attention.

By way of preview, in this study we explore the determinants of news coverage of labor-management disputes, some settled by strikes and others without a work stoppage. We find that strikes receive more attention than peaceful settlements (with long-duration strikes attracting more coverage than short ones), that coverage increases with the employment size of the unit, and that government intervention attracts coverage. All of these influences may seem common sense and uncontroversial. However, controlling for such influences, we do not find that union settlements received reduced news attention in the 1980s, despite the general swing toward conservatism and the decline of union membership that characterized that period.

I. Why Be Concerned About Union-Sector Information?

Readers may have various reasons for concern about the determinants of news coverage of union-sector activities. Some may be interested in whether the media are biased against unions and report only "bad news." A bad-news bias, in turn, might be considered a causal candidate for the decline in unionization in the U.S. Perhaps the media are turning employees against unions.

Several recent studies have appeared which follow this approach. Puette

(1992), for example, argues that the media now are more influential than in the heyday of union activities. "In earlier times people were more likely to form their opinions as well as class and party allegiances under the influence of family, neighbor, teacher, preacher, and co-worker" (p. 4) while nowadays - according to Puette - the media determine such views. Unlike the current study, Puette directly examines coverage of unions in movies, TV (both news and entertainment), newspapers, comic strips and cartoons. Emphasis on bad news in these forums, according to Puette, occurs any time "that organized labor is successful in developing bargaining power."¹ (p. 157)

While Puette's conclusions are based primarily on direct content examination of media coverage of unions, other studies have attempted to link public opinion poll outcomes statistically to media coverage. Jarley and Kuruvilla (1994) consider media coverage along with economic variables (unemployment, inflation, union wage differentials) and a direct measure of labor relations - strikes. They find only a mild linkage, if any, between public opinion outcomes and negative media coverage. However, information on strikes and economic variables may be conveyed to the public through the media. Thus, there may be an understatement of the media influence when such measures are included separately as independent variables. Schmidt (1993), in contrast, looks at strike coverage as a variable determining public opinion regarding unions and finds a negative effect. Apart from public opinion consequences, there have also been concerns expressed that lack of professional labor reporters produce superficial coverage, even if it is balanced.²

Information is also a critical, if often unrecognized, element in the American literature on pattern bargaining and wage spillovers. A common theme

in this literature, going back at least to Ross' (1948) classic study is that wages set in one unit create "coercive comparisons" for other units, forcing wage imitation. The notion of key bargains which set patterns more widely spilled out of the industrial relations literature and into the early Phillips curve research. Eckstein and Wilson (1962) included wages in identified key industries as explanatory variables in aggregate wage determination. The degree to which pattern following within the union sector and from union-to-nonunion has been a major element in wage setting has been subject to dispute, even before the 1980s. (Mitchell, 1980, pp. 163-207; Mitchell, 1982) But beginning in the 1980s, there was much discussion of the breakdown of patterns and decentralization of bargaining.³ (Freedman and Fulmer, 1982; Ready, 1990; Budd, 1992; Erickson, 1992) At the same time, there was debate over the influence of wage "norms" at the macro level (Perry, 1983; Mitchell, 1985), norms which might be influenced by highly visible union settlements - including concession bargains.

For pattern bargaining or spillovers or imitative norms to occur (or to have occurred in the past before possibly breaking down in the 1980s), there must be information about the results of settlements which others may then choose to follow. Those researchers concerned with wage patterns and spillover, therefore, should - in addition - be interested in media coverage of settlements as potential channels of such information. A change in coverage patterns could affect wage setting institutions or, perhaps, could explain changes already seen in such institutions.

There has also been a literature linking financial market developments to union bargaining outcomes. Neumann (1980) and Becker and Olson (1986), for example, argued that the stock market could - to some extent - anticipate

strikes but still reacted negatively to them when strikes actually occurred. For investors to anticipate strike occurrences, they must obtain information on how the negotiations are progressing and, of course, they must be informed when strikes break out.

In short, the means by which information spreads should be of interest to scholars with a wide variety of perspectives and concerns. There is evidence that the parties to labor disputes themselves gain information based on the outcomes.⁴ Any field of research in which outsiders must also gain information should not neglect the sources of that information.

Only data from union settlements, both strikes and non-strikes, are used in the study reported below. Theoretically, there is no reason why a nonunion wage determination might not spark wage imitation or affect the stock market or be given a favorable or unfavorable review in the media. But in fact, nonunion wage determinations are virtually never discussed in the media. Those concerned with wage setting will probably not find this fact surprising since nonunion firms often are at pains to keep wage information confidential, even within house - so that workers cannot compare salaries with one another. A quick print media search using the Nexis database confirmed this absence of nonunion information.⁵ If nonunion wage determinations are setting patterns or having any other economic impact, they are not doing so through information spread by the popular media.⁶

II. Data Sources Used

Our sample of contract disputes and settlements falls into two categories, strikes and non-strikes. For strikes, we used the annual Analysis

of Work Stoppage bulletins published by the Bureau of Labor Statistics (BLS) until 1980. These bulletins contained listings of major strikes and information about their causes, number of workers involved, parties to the dispute, etc. The identifying data permitted the industry to be determined. Thereafter we used other reports of strikes from the BLS, mainly those which appeared in its journal Current Wage Developments (now known as Compensation and Working Conditions). To determine the nature of the dispute, information from other sources - such as media reports - was utilized. From these sources, we drew all strikes from 1949 to 1991 involving at least 10,000 workers.

Clearly, using only major strikes creates a potential bias; perhaps strikes involving fewer workers are reported differently. Indeed, our data below suggest that strikes involving only a few workers are probably not reported. There certainly is evidence that little strikes differ in character from large ones. (Skeels, McGrath, and Arshanapalli, 1988) But unless small strikes have large consequences (perhaps a small strike in a critical plant that causes a ripple of layoffs in a large company) they are unlikely to be reported at all.

For non-strike settlements, we used summaries appearing in Current Wage Developments which also include information on the size of the unit, the industry, and the parties involved. Such settlements are inherently resolutions of disputes over interests. In contrast, some strikes - even large ones involving 10,000 or more workers - may be over rights. We go back only to 1965, rather than all the way back to 1949, for the non-strikes for a practical reason. The number of non-strikes vastly exceeds strikes and the numbers of both increases as we go back in time. The procedure - described

below - for identifying coverage is tedious and time consuming and the 1965 cutoff simply represented necessary economy of effort.⁷

As a measure of media coverage, we used two indicators from the New York Times: number of articles about the dispute and number of front-page articles. The former might be taken as a quantity measure; the latter as a quality measure. In practice, the two turn out to yield similar results. Both were determined by checking the annual index to the Times for articles on the strike and non-strike situations.⁸

Of course, the New York Times is only one medium of information and represents only one form of media coverage of bargained settlements: newspapers.⁹ We are not alone, however, in using the Times to measure media coverage. The above-mentioned article by Schmidt (1993) uses the Times in a similar fashion. Several reasons for this methodology can be cited. First, there is the practical one of ready availability. Other newspapers may not publish annual indexes and there are none at all for the electronic media.¹⁰ Second, the Times is noted as the pre-eminent national newspaper; other papers and broadcasters use Times coverage to determine what stories are important.¹¹

Third, even specialized reporting services - such as the Daily Labor Report (DLR) - seem to exhibit a pattern of coverage similar to the Times. We used the Nexis database for the period 1982-1991 to compare Times and DLR coverage of the strikes and non-strikes in our sample - measured by number of articles. The resulting correlation coefficients ranged from .86 to .96, depending on the precise key words used.¹²

Despite the Times' special status as a newspaper of record, its coverage

is likely to be biased towards news occurring in the New York area. To deal with this tendency, we control for the New York bias in the results reported below by including locational information on the strike and non-strike settlements. Of course, it is conceivable that if other media reports are influenced by Times coverage, there may also be a New York bias more generally in the reporting of strikes and non-strikes. However, our data do not permit investigation of this possibility.

III. Introduction to the Data

Our final database consists of 742 strike events (1949-91) which were associated with 9,036 Times articles and 1,073 non-strike settlements (1965-91) associated with 1,065 articles. Table 1 provides descriptive information relating to strike and non-strike coverage. The overall article-to-strike ratio was substantially higher - 12.2 as shown on Table 1 - than the article-to-non-strike-settlement ratio (1.0). While this apparent tendency of the Times to focus attention on strikes could conceivably shrink with the addition of more variables to the analysis, such a large empirical gap is unlikely to be erased completely by additional controls.

Essentially, the process we envision is that the Times makes a judgment about how newsworthy an event is. Newsworthiness can be thought of as an index along a continuous scale N . Thus, $N = f(\text{strike}, X)$, where X is a vector of relevant characteristics related to the event. Articles actually appear (or appear on the front page) when $N > H$ (or $N > H_f$), where H (or H_f) is a hurdle value of perceived newsworthiness. The number of articles A (or front page articles A_f) is a positive function of N above the hurdle point.

The most obvious reason for the bias toward strike reporting is that strikes have drama and human interest. But other factors might lead the Times and other media to tilt toward strikes. First, there is evidence that the occurrence of a strike in one negotiation raises the probability of a subsequent strike. (Card, 1988) Thus, if strikes are newsworthy for any reason, occurrence of a strike - by signaling strike proneness in the future - is doubly of interest.

Second, strikes may be information-revealing tactics for unions. Card (1990), McConnell (1989), and Hayes (1984) suggest that unions gain information on true employer profitability by striking. Presumably, outsiders - learning of the strike - may also gain such information.¹³ Such outsiders may include Times readers. Third, there has been general concern in the U.S. about rising wage inequality and some evidence suggesting that strikes are associated with less inequality. (Rubin, 1988) Thus, strikes may stand for larger social and economic issues and be of public interest for that reason.

Fourth, strikes may have wider economic effects than those felt by the parties themselves, particularly the larger ones to which our sample is confined. Of course, most strikes do not have wide-ranging effects since there are a variety of substitution possibilities and inventory cushions which reduce the external impact. (Neumann and Reder, 1984) But the potential that a strike might have wider consequences could be of public interest. Times readers may be concerned about the potential economic impact and since the impact is likely to grow as the strike's duration is extended, we might expect longer strikes to receive more coverage than shorter ones. In addition, federal intervention (as through a Taft-Hartley injunction) may signal a judgment by the authorities that the impact would be significant and might

therefore attract coverage. Table 1 supports both such associations.

There may be difference in perceived newsworthiness of interest disputes vs. others. Interest disputes typically involve contract renegotiations and tend to deal with major cost-related issues such as wages and benefits. Other disputes, in contrast may involve local issues and may reveal more about the climate of industrial relations than costs per se. (Flaherty, 1987, 1983) Of course, both climate and costs are potentially newsworthy so it is difficult to say a priori whether interest disputes would elicit more or less coverage than others. As Table 1 shows, there is a higher number of articles per strike event for interest disputes than for others. For the non-strike settlements, however, such information is not available since all settlements reported in Current Wage Developments are interest disputes.¹⁴

There may be differential perceived newsworthiness according to industry. The notion of key industry settlements which set patterns for others has already been noted. Eckstein and Wilson's already-cited designation of key industries in manufacturing was based on discussions with industrial relations experts who identified the keys. One possibility is that such "recognized" keys might be given special attention by the media. Hence, below we test for differential treatment of Eckstein and Wilson keys.

Since the Eckstein-Wilson paper was confined to manufacturing industries, we consider the possibility that trucking (including the big Teamsters National Master Freight agreement) and telecommunications (including the big pre-deregulation settlements involving the Bell System) might receive differential coverage. Thus, Table 1 uses an expanded version of Eckstein-Wilson key industries to include the latter two sectors. While there is

little difference between key industries and non-key in the gross data of Table 1 for strikes, key non-strike settlements receive more articles per event than non-key non-strikes.

Particular unions might be more newsworthy than others. The United Auto Workers has often been seen as an innovative union implementing major contractual devices such as multiyear contracts and escalators in the 1940s and profit sharing in the 1980s. The Steelworkers have also been party to innovations such as labor-management cooperative programs in the early 1960s and interest arbitration in the 1970s. Finally, the Teamsters achieved a level of notoriety during much of the period covered due to allegations of corruption.

Table 1 compares articles per event for these three unions relative to all others. Little difference appears with regard to coverage of strikes involving the three prominent unions and others. As in the case of Eckstein-Wilson industries, some difference does appear for the non-strikes. The prominent unions receive more coverage per settlement than others. However, there are other variables which may explain this discrepancy; the prominent unions' settlements may have other characteristics (such as size, tendency to be in Eckstein-Wilson industries) which could produce the higher coverage.

Because the 1980s were characterized by a variety of changes in the union sector, notably membership loss and the rise of concession bargaining, it is possible that media coverage was affected. Table 2 shows the annual number of articles relating to strikes and to non-strike settlements by period.¹⁵ It is clear that the frequency of strike-related articles has declined. However, since - as the table also shows - the annual number of

strikes and non-strike settlements also dropped in the 1980s - reduced frequency of articles might be expected.

Since membership loss and concession bargaining were themselves dramatic events, it is not evident that even if unions were weakened in the 1980s, they would receive less coverage per event. On the other hand, reporters and editors might have viewed the union sector as less important and reduced their per-event coverage as a result. Table 1 shows a mixed picture; in the period 1980-91 articles per strike rose relative to 1949-79 but articles per non-strike declined relative to 1965-79.¹⁶

Finally, as noted, proximity to New York may be a determinant of Times coverage. We used two definitions of proximity, broad and narrow. The broad definition included strikes clearly in New York City area as well as others which were likely to have included New York as part of a (locationally) broader bargaining unit. The narrow definition was confined to just those clearly in the New York area. Table 1 indicates that there were 2-3 times more articles per strike - using the broad definition for events in the New York area than for others.¹⁷

IV. Multivariate Analysis

Although the descriptive data of Table 1 are suggestive of various conclusions, causal inference requires a multivariate technique. Ordinary least squares analysis of the number of articles (or front page articles) printed by the Times for each event is inappropriate since that number is bounded by zero at the lower end. Moreover, zero is a common outcome; 27% of the strike events (1949-91) and 72% of the non-strike settlements (1965-91)

had no articles. Thus, we rely on Tobit regressions for our analysis. However, Tobit coefficients do not translate directly into incremental articles (above zero) per unit of the independent variables. We provide, therefore, coefficient-to-page conversion factors with our results.¹⁸ To convert coefficients to pages, the conversion factor should be multiplied by the coefficient. So, for example, on Table 3 - to be discussed below - where the conversion factors are about .5, the coefficients are roughly double the size of the marginal article effects.

i. Analysis of Strike Coverage.

Table 3 presents Tobit regressions of number of articles on the explanatory variables presented in Table 1 for settlements involving strikes over the sub-periods 1949-59, 1960-69, 1970-79, 1980-91, and the entire period, 1949-91. Over the entire period (column [5]), the size of the bargaining unit, the duration of the strike, membership in the expanded Eckstein-Wilson "key industries," the existence of federal intervention, and proximity to New York all have a positive and statistically significant effect on the number of articles in the New York Times.

However, whether or not the dispute was over interests did not appear to make a significant difference in coverage. Nor is there any evidence that strikes involving either the Teamsters, the Auto Workers, or the Steelworkers received more coverage, ceteris paribus, than strikes involving other unions despite the view that these unions are pace setters or otherwise newsworthy. It may be that the folklore which attributed special newsworthiness of these unions was incorrect; perhaps what attracted interest to them was that they

represented units with large numbers of workers.

Finally, we find a surprising positive coefficient on the post-1979 dummy variable; the regression taken literally suggests that particular strike events (controlling for their characteristics) received more coverage in the 1980s than before. Thus, the overall drop in the absolute number of strike articles during that decade compared with the 1970s was likely due to changes in the explanatory variables or just fewer strikes. There does not seem to be a systematic change in newspaper strike coverage behavior in the direction of less coverage for a given news content.

The other columns of Table 1 present the same regressions over the periods 1949-59, 1960-69, 1970-79, and 1980-91. Among the statistically significant variables, there are no changes in sign, but only unit size and duration of strike show any stability over these broad periods. The differences between the regressions suggest that the process of determining newspaper coverage has changed over time, though, again, not necessarily in the direction of less coverage in the 1980s.

ii. Analysis of Non-strike Wage Settlements.

Table 4 presents Tobit regressions for non-strikes. Over the entire period (column [4]), the size of the bargaining unit, membership in one of the expanded Eckstein-Wilson "key industries", and proximity to New York all have a positive and significant effect on the amount of coverage. Here, the post-1979 variable is statistically insignificant at conventional levels.

Again, the results suggest a lack of a "structural break" in the

direction of less New York Times coverage during the 1980s once we control for the other factors. And, as with the regressions on strikes, the analysis of the periods 1965-69, 1970-79, and 1980-91 indicates lack of stability of the coefficients across these periods. But no propensity to reduce coverage for non-strikes in the 1980s is apparent.

iii. Pooled Results.

Table 5 presents strike and non-strike regressions over the period 1965-91 (columns [1] and [2]) and pooled regression over the same period (columns [4] and [5]). Note that the conversion factor is twice as large for the strike sample as the non-strike sample, due to the larger amount of non-coverage among the non-strike settlements. Most notable here is 1) the lack of similarity in the coefficients in the strike and non-strike regressions (columns [1] and [2]) and 2) the coefficient on the post-1979 dummy in the pooled regressions.

Also noteworthy is the fact that on Table 5 the augmented Eckstein-Wilson industries dummy is significant in the non-strike and pooled regressions but not in the strike regression. Apparently, if the settlement lacks the drama of an actual strike, coverage is influenced by industry of origin. But the drama of a strike eclipsed any industry considerations during 1965-91 but not in the longer (1949-1991) regressions of Table 3.

When we do not include controls for strike duration and existence of a strike (column [3]), the coefficient on the post-1979 dummy is negative and significant. But with these controls added (column [4]), the post-1979 coefficient is insignificant.¹⁹ This result once again suggests a lack of a

structural break in the direction of less New York Times coverage in the 1980s. The implication is that strikes receive special coverage; with fewer strikes, as in the 1980s, there is going to be less coverage.

Table 6 presents the results from running the same regressions in Table 5, but including separate dummies for each of the eight Eckstein-Wilson two-digit industries, trucking, and telecommunications. Gramm [1987], Kaufman [1983], Reder and Neumann [1980], Mitchell [1981], Leigh [1983], and Tracy [1986] all find cross-industry variation in the propensity to strike. We include these industry dummies to test for the possibility that industry characteristics at a more detailed level are important article determinants which the Eckstein-Wilson dummy only imperfectly captures. However, a comparison with the coefficients in Table 5 suggests little change. Again, industry seems to matter only for non-strike settlements. The finding remains that there was no structural break in the direction of less coverage in the 1980s.

iv. The Lack of a Post-1979 Break

Because the lack of a structural break in the 1980s was surprising (to us, at least), we spoke to two current reporters at the Times who sometimes write labor stories and one former reporter. All were also surprised at the results and suggested that the quality, rather than the quantity, of coverage may have changed. Generally, they reported that the editorial judgment of the Times and other newspapers is that with the decline in union membership, union-related events are no longer as significant to the economy as was once the case. Hence, it is not worth employing full-time labor reporters who specialize in union-sector affairs. Given these changes, story accuracy and

completeness may be less today than in the past. Our method of measuring coverage, a simple count of articles, does not permit judgment on this issue.

It might be noted in closing that our use of a dummy to represent the post-1979 period may not capture the complete change in all the coefficients in that period. But our analysis of out-of-sample prediction errors for the basic strike, non-strike, and pooled regressions indicates that the prediction errors are not significant on average. While the pre-1980 models are not exactly the same as the post-1979 models, the nature of the process generating newspaper coverage did not change so as to lead to systematic "under-reporting" of union strikes and settlements in the 1980s, given the control variables.

VI. Conclusions

Several lessons may be drawn from our analysis. There does not appear to have been a structural break in reporting of union wage settlements in the 1980s. Coverage of such settlements fell, but the drop was due to longstanding determinants of what makes settlements newsworthy. Notably, strike incidence declined. We are not saying there was no lasting effect of the decline in absolute (as opposed to per controlled event) reporting; it could well be that the decline led to a permanent reduction in media expertise in labor relations so that even if the quantity of reporting returned to previous levels, the quality did not.

We do know, however, that certain variables seem to increase news coverage of union settlements: strikes, strike duration, size of the unit, and the presence of federal intervention. For the New York Times, a settlement in

a unit in the New York area receives more coverage than a comparable unit elsewhere. Presumably, similar locational biases are found in other newspapers and the electronic media. There may be some bias toward reporting settlements in particular industries, notably those identified as key pattern setters many years ago by Eckstein and Wilson. Whether this represents a sense that such industries are key settlements or whether the bias may have made those industries key (at least in the past) is unknown. Certain unions also receive greater coverage but this tendency appears to be explained by other variables.

Since we did not attempt to analyze biases that may existed within the newspaper articles on union settlements, e.g., a tendency to blame one side or the other, we cannot speak to all of the issues raised in studies such as Puette's. However, our measures of coverage suggest that diminution of coverage is not itself the result of antiunion bias but rather a shift in the industrial relations climate toward fewer strikes, smaller units, and fewer units. The fact that strikes are a key attraction for coverage, however, poses a Catch-22 for unions since the way to get your name in the paper is to be involved in bad news. There is the old adage: "I don't care what they say about me as long as the spell my name right." But unless unions believe that all publicity is good, no matter the cause or slant, they have a problem in obtaining coverage for peaceful, cooperative settlements.

For readers interested in possible pattern setting in union wage determination, our results provide evidence that information availability on union wage settlements is declining, albeit for understandable and predictable reasons. We cannot establish from our data whether or not patterns are important or whether union wage settlements influence nonunion wages.

However, we can say that even if there is a propensity to imitate, there must be information to sustain it and that without a hike in strike activity the contemporary information gap will continue. Nonunion wage determinations seem to get very little publicity. So in that regard, union wage setting is becoming more like nonunion.

From a policy perspective, it would be difficult to argue today that unpublicized union wage setting is a significant source of inflation. At one time, the makers of monetary policy and the establishers of wage guidelines assumed that unions were a key element in aggregate wage setting. Anyone making such an assumption in the current period, however, must explain how wage information from the union sector is being transmitted.

Finally, for researchers who have sought linkages between stock market activity and labor relations developments, the decline in information from the union sector might make strikes less predictable. Markets may be efficient in the sense of being unbiased predictors. But they need not be accurate and - indeed - with less information, accuracy may suffer.

Table 1: Summary Data on Number of Articles

| | Strikes: Articles Per Event 1949-91 | Non-Strike Settlements: Articles Per Event 1965-91 |
|--|--|--|
| Total | 12.2 (742) | 1.0 (1065) |
| Number of Workers: | | |
| 30,000 or more | 25.5 (200) | 2.5 (245) |
| 18 - 29,999 | 8.1 (189) | .7 (201) |
| 13 - 17,999 | 7.8 (183) | .4 (255) |
| 10 - 12,999 | 5.8 (170) | .6 (364) |
| Strike Duration: (days) | | |
| 43 or more | 27.5 (188) | n.a. |
| 16-42 | 8.9 (193) | n.a. |
| 6-15 | 8.3 (196) | n.a. |
| 1-5 | 3.3 (165) | n.a. |
| Interest Dispute? | | |
| Yes | 13.3 (550) | 1.0 (1065) |
| No (a) | 9.1 (192) | - (0) |
| Federal Intervention? | | |
| Yes | 24.7 (58) | unknown |
| No | 11.1 (684) | unknown |
| Expanded Eckstein- Wilson Industry? | | |
| Yes | 11.9 (275) | 1.6 (231) |
| No | 12.3 (467) | .8 (834) |
| Auto Workers, Steelworkers, Teamsters? | | |
| Yes | 12.3 (160) | 1.7 (102) |
| No | 12.2 (582) | .9 (963) |
| New York Area? (b) | | |
| Yes | 23.5 (124) | 2.3 (222) |
| No | 9.9 (618) | .7 (843) |
| Pre-1980 | 11.6 (652) | 1.3 (609) |
| 1980-91 | 16.4 (90) | .7 (456) |

(a) Some non-interest disputes were political stoppages; most were rights disputes.

(b) New York area is defined as settlements or strikes known definitely to have occurred in New York City or which appear possibly to have occurred in New York as part of a (locationally) wider dispute.

Note: Figures in parentheses are the number of events in the category.

Source: Authors' data file described in text.

Table 2: Trends in Major Strikes, Major Non-Strike Settlements, and Coverage

| | 1949- 1954 | 1955- 1959 | 1960- 1964 | 1965- 1969 | 1970- 1974 | 1975- 1979 | 1980- 1984 | 1985- 1991 |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Annual Number of Strikes | 28 | 18 | 14 | 26 | 27 | 17 | 10 | 8 |
| Annual Number of Strike Articles | 277 | 263 | 144 | 380 | 237 | 212 | 203 | 91 |
| Mean Strike Duration (days) | 23 | 36 | 26 | 34 | 29 | 35 | 38 | 38 |
| ----- | | | | | | | | |
| Annual Number of Non-Strike Settlements | - | - | - | 44 | 37 | 41 | 34 | 57 |
| Annual Number of Non-Strike Settlement Articles | - | - | - | 47 | 67 | 39 | 23 | 38 |

Note: Data on non-strike settlements were not collected before 1965.

Source: Authors' data file described in text.

Table 3: Tobit Strike Regressions

| Period | 1949-59 | 1960-69 | 1970-79 | 1980-91 | 1949-91 |
|---------------------------|--------------------|--------------------|---------------------|--------------------|---------------------|
| Number of Workers | .118*** (.012) | .151*** (.033) | .100*** (.020) | .044 (.048) | .114*** (.011) |
| Strike Duration (days) | .266*** (.036) | .256*** (.044) | .264*** (.033) | .219*** (.071) | .256*** (.020) |
| Augmented Eckstein-Wilson | 7.23*** (2.52) | 7.10* (3.74) | .221 (3.07) | 6.90 (10.56) | 4.91*** (1.84) |
| Prominent Union (a) | -4.19 (2.70) | .707 (4.53) | 2.66 (3.69) | -7.72 (12.29) | -.823 (2.12) |
| Interest Dispute | -1.63 (2.48) | -7.19* (3.81) | 4.60 (3.27) | 29.06* (17.23) | -.643 (1.91) |
| Federal Intervention | 15.99*** (4.63) | 1.74 (6.92) | 11.16** (4.46) | 38.53** (16.34) | 10.40*** (3.01) |
| New York Area | 11.44*** (2.84) | 21.33*** (3.81) | 20.86*** (3.90) | 22.57** (10.39) | 17.61*** (2.05) |
| Post-1979 Period | | | | | 4.82** (2.40) |
| Constant | -8.96*** (2.51) | -8.73** (3.83) | -14.17*** (3.20) | -32.93* (16.93) | -10.82*** (1.91) |
| Number of Observations | 232 | 204 | 216 | 90 | 742 |
| Log Likelihood | -779 | -703 | -716 | -363 | -2589 |
| Coefficient-to-Page Ratio | 0.53 | 0.51 | 0.50 | 0.57 | 0.52 |

Note: The dependent variable is number of articles. Standard deviation in parentheses.

* = significant at 10% level

** = significant at 5% level

*** = significant at 1% level

(a) United Auto Workers, Steelworkers, Teamsters

Table 4: Tobit Non-Strike Regressions

| Period | 1965-69 | 1970-79 | 1980-91 | 1965-91 |
|-----------------------------|--------------------|---------------------|--------------------|--------------------|
| Number of Workers | .064*** (.006) | .032*** (.005) | .048*** (.006) | .037*** (.003) |
| Augmented Eckstein-Wilson | 1.47* (0.79) | 5.85*** (1.34) | 2.02** (0.86) | 3.52*** (0.63) |
| Prominent Union (a) | 1.64 (1.57) | .419 (1.62) | 1.26 (1.02) | .790 (0.82) |
| New York Area | 2.17*** (0.79) | 11.06*** (1.17) | 3.00*** (0.71) | 5.98*** (0.56) |
| Post-1979 Period | | | | -0.68 (0.48) |
| Constant | -4.66*** (0.63) | -10.43*** (1.03) | -5.94*** (0.64) | -7.10*** (0.52) |
| Number of Observations | 220 | 389 | 456 | 1065 |
| Log Likelihood | -279 | -467 | -428 | -1215 |
| Coef-ficient -to-Page Ratio | 0.29 | 0.26 | 0.24 | 0.26 |

Note: The dependent variable is number of articles. Standard deviation in parentheses.

* = significant at 10% level

** = significant at 5% level

*** = significant at 1% level

(a) United Auto Workers, Steelworkers, Teamsters

Table 5: Strike, Non-Strike and Pooled Regressions

| Period | Strike 1965-91 | Non-strike 1965-91 | Pooled 1965-91 | Pooled 1965-91 |
|---------------------------------------|---------------------|-----------------------|---------------------|---------------------|
| Number of Workers | .112*** (.018) | .037*** (.003) | .097*** (.008) | .086*** (.006) |
| Strike Duration (days) (a) | .277*** (.028) | | | .267*** (.017) |
| Strike | | | | 13.71*** (1.18) |
| Augmented Eckstein- Wilson | 2.73 (2.83) | 3.52*** (0.63) | 7.69*** (1.46) | 5.20*** (1.21) |
| Prominent Union (b) | .788 (3.43) | .790 (0.82) | 5.50*** (1.85) | .838 (1.53) |
| Interest Dispute | 1.85 (3.16) | | | |
| Federal Intervention | 11.04** (4.72) | | | |
| New York Area | 24.66*** (3.35) | 5.98*** (0.56) | 15.47*** (1.43) | 15.85*** (1.18) |
| Post-1979 Period | 4.72 (2.98) | -0.68 (0.48) | -4.38*** (1.23) | 0.88 (1.04) |
| Constant | -14.55*** (3.08) | -7.10*** (0.52) | -14.65*** (1.07) | -21.24*** (1.09) |
| Number of Observa- tions | 438 | 1065 | 1503 | 1503 |
| Log Like- lihood | -1570 | -1215 | -3205 | -2961 |
| Coef- ficient -to-Page Ratio | 0.52 | 0.26 | 0.32 | 0.32 |

Note: The dependent variable is number of articles. Standard error in parentheses.

* = significant at 10% level

** = significant at 5% level

*** = significant at 1% level

(a) In pooled regression, non-strike duration = 0.

(b) United Auto Workers, Steelworkers, Teamsters

Table 6: Tobit Regressions Using Industry Dummies

| Period | Strike 1965-91 | Non-strike 1965-91 | Pooled 1965-91 | Pooled 1965-91 |
|----------------------------|-------------------|-----------------------|--------------------|--------------------|
| Number of Workers | .116*** (.018) | .036*** (.003) | .100*** (.008) | .086*** (.006) |
| Strike duration | .282*** (.027) | | | .268*** (.016) |
| Strike (a) | | | | 13.77*** (1.18) |
| Rubber and Plastic | 9.28 (8.25) | 7.90*** (1.86) | 21.18*** (4.54) | 12.82*** (3.57) |
| Stone, Clay, and Glass | 4.90 (13.23) | -11.76 (31.65) | 1.05 (7.83) | -2.75 (6.95) |
| Primary Metal | .172 (11.29) | 4.91*** (1.31) | 2.03 (3.86) | 5.95* (3.13) |
| Fabricated Metals | 2.38 (11.80) | 5.07** (2.45) | 7.41 (6.17) | 7.67 (4.95) |
| Nonelectrical Machinery | -3.19 (7.22) | 1.97 (1.85) | .36 (4.13) | -1.22 (3.46) |
| Electrical Machinery | 4.33 (5.54) | 4.10*** (1.52) | 11.97*** (3.30) | 5.54** (2.64) |
| Transport Equipment | 8.08* (4.51) | 3.75*** (0.93) | 6.50*** (2.31) | 7.50*** (1.88) |
| Instruments | 10.43 (23.11) | (c) | 9.61 (18.61) | 4.92 (14.55) |
| Trucking | 2.18 (8.47) | 6.11*** (1.88) | 7.24 (4.57) | 7.57** (3.64) |
| Telecommuni- cations | -3.40 (4.48) | 1.64 (1.09) | 6.65*** (2.43) | 1.52 (2.02) |
| Prominent Union (b) | .214 (4.20) | .325 (1.01) | 8.06*** (2.31) | .567 (1.90) |
| Interest Dispute | 1.72 (3.10) | | | |

over-->

Table 6: Tobit Regressions Using Industry Dummies - continued

| Period | Strike 1965-91 | Non-strike 1965-91 | Pooled 1965-91 | Pooled 1965-91 |
|---------------------------------------|---------------------|-----------------------|---------------------|---------------------|
| Federal Intervention | 10.67** (4.56) | | | |
| New York Area | 25.62*** (3.27) | 6.07*** (0.56) | 15.79*** (1.43) | 16.01*** (1.17) |
| Post-1979 Period | 5.29* (2.90) | -.775 (0.48) | -4.28*** (1.23) | 0.93 (1.03) |
| Constant | -14.72*** (3.01) | -7.04*** (0.52) | -15.03*** (1.08) | -21.16*** (1.08) |
| Number of Observa- tions | 438 | 1065 | 1503 | 1503 |
| Log Like- lihood | -1566 | -1207 | -3201 | -2953 |
| Coef- ficient -to-Page Ratio | 0.52 | 0.26 | 0.32 | 0.32 |

Note: The dependent variable is number of articles. Standard deviation in parentheses.

* = significant at 10% level

** = significant at 5% level

*** = significant at 1% level

(a) In pooled regression, non-strike duration = 0.

(b) United Auto Workers, Steelworkers, Teamsters

(c) No observations for this industry in this period.

Footnotes

1. It should be noted that some of the bias found by Puette may be inadvertent. For example, he cites a high school poll (p. 160) in which students overestimate the percentage of contract disputes that end in strikes. The correct number is said to be 2%. But students think it is more on the order of 10%. The latter figure in fact is roughly the correct answer for major contracts and, as we will show below, large units receive more coverage.

2. Verma (1988), for example, finds that newspaper coverage of union activities in Canada is "balanced" but not sufficiently in depth. The decline in unionization in the U.S. has meant an end to professional labor reporters as a distinct field of journalism so that, for example, Abe Raskin of the New York Times and Harry Bernstein of the Los Angeles Times have no contemporary equivalents.

3. A parallel literature on the breakdown of centralized collective bargaining exists in the international comparative literature. See Katz (1993).

4. For example, Mauro (1982) found that a strike in one negotiation reduced the probability of a strike in the next - presumably because the parties had gained information on each other's positions and reactions. Thus, for example, the historical record of a past strike, as recorded in the media, would be of relevance for investors seeking information on strike probabilities.

5. The Nexis database contains articles from numerous newspapers and magazines, generally back to the early 1980s. We asked a research assistant in August 1993 to search for articles containing the words wage or salary (and variants) for matched pairs of union and nonunion companies, e.g., GE vs. IBM. The union companies had many more references than the nonunion. And an examination of the actual articles revealed that the nonunion cases contained no wage information. At best they reported an occasional top executive salary. At worst the database produced humorous confusions (such as the entangling of nonunion R.J. Reynolds tobacco with the baseball player of the same name (who had his salary arbitrated)).

6. Of course, nonunion wages are included in aggregate data produced by the Bureau of Labor Statistics and surveys by private consulting companies and trade associations. To the extent that reported averages influence individual wage setters, nonunion wages are potential pattern setters with weights equal to those they carry in the aggregate series (typically the percent of payroll or the percent of workers in the sample).

7. Another reason is that it appears Current Wage Development may be less complete in terms of industry coverage as we go back in time.

8. The date of the strike or settlement was used as an anchor for the search. Essentially, the index to the New York Times was searched around that date for references to the strike or situation. Articles leading up to the strike or settlement, i.e., about the negotiations, were included.

9. A bit of casual evidence is worth noting on this point. After the 1993 General Motors settlement with the United Auto Workers, we randomly telephoned members of the American Compensation Association. Of those who claimed knowledge

of the settlement, 80% cited newspapers as the source. (TV and radio accounted for most of the others.)

10. Note that ready availability to us is also ready availability to others, say, a stock market investor looking for a history of the labor relations climate at a particular company.

11. This point was made by an electronic media journalist who attended a presentation of an early version of this research. Other knowledgeable observers have made similar comments to us in interviews.

12. Nexis coverage of the Daily Labor Report begins in 1982 and our sample period ends in 1991. The search period for articles in both the Times and the DLR was the 6 months before and after the strike settlement or (peaceful) wage settlement. Number of articles obtained in this matter will differ from those obtained from the manual tabulation based on actually reading the entries in the Times index since computer searches may include unrelated articles which happen to contain the key words.

13. Unions may have other ways of obtaining such information. Crampton and Tracy (1992) note that unions often engage in "holdouts", i.e., working beyond contract expiration, as a negotiating tactic. However, such holdouts may not inflict costs on the employer to the degree that strikes do, and so are likely to reveal less information. In their sample, only 10% of settlements involved strikes compared with 47% which were holdouts (with the rest settled before the deadline). It is clear that the strike is a much more rare weapon of last resort compared with the holdout.

14. It is reasonable to suspect, however, that there would be little coverage of rights disputes which are settled without strikes. Without a strike, it is unclear that the Times would be aware of the dispute.

15. Although this paper does not deal with why strikes declined in the 1980s, the literature suggests some hypotheses: reduction of inflation (Kaufman, 1981), reduction of inflation uncertainty (which often accompanies periods of low inflation) (Gramm, Hendricks, and Kahn, 1988), the breakdown of coalition bargaining (Cheung and Davidson, 1991), or just that there are unaccountable waves in strike activity which statistical analysis cannot explain (Franzosi, 1989). There were various statements by observers that somehow the strike weapon was no longer effective (e.g., Feller, 1992), although why that should be was not always clear. The decline in non-strike settlements presumably reflects the loss of union membership and representation and the shrinkage of some units below our 10,000 worker cutoff point.

16. If the pre-1980s period is confined to 1965-79 so that strikes and non-strikes can be compared, the number of articles per strike was 11.9 compared with 16.4 in the period 1980-91.

17. The two definitions are highly correlated. In the regression results that follow, we use the broad definition.

18. These are based on the formula found in McDonald and Moffitt (1980).

19. Note that the same holds true for the union variable; it is positive and significant only before we control for the existence and duration of a strike.

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