Determinants of Faculty Voting Behavior in Union Representation Elections: A Multivariate Model

Masoud Hemmasi
Illinois State University

Lee A. Graf
Illinois State University

A model of faculty unionism that integrates a diverse set of factors representing various perspectives on voting behavior in unionization drives was developed. This model was then tested using data obtained from faculty in three institutions of higher education simultaneously undergoing collective bargaining elections. The study results suggest that work context, socio-political beliefs, general attitudes toward unions, perceptions of union instrumentality at one’s own workplace, and pay are strong determinants of faculty voting behavior. Union instrumentality perception was the single largest determinant of the vote. The model had strong predictive power.

Faculty unions (e.g., AAUP, AFT) have a long organizational history, yet faculty collective bargaining in higher education is a relatively recent phenomenon. The first collective bargaining agreements in institutions of higher education were reached in the late 1960s (Cameron, 1982). Between 1969 and 1979, the number of institutions with unionized faculties increased from only 24 to 227 (Garbarino, 1980). Most election activity of this decade occurred in the mid-seventies, with 1975 as the peak year. Also, 1973-1975 marked the period in which for the first time new collective bargaining agreements in private institutions exceeded those in public universities (Garbarino, 1980).

The prospects for growth of unionism in the private sector, however, were dimmed as a result of the Supreme Court’s 1980 Yeshiva decision (Garbarino, 1980). This decision upheld the right of Yeshiva University administration to refuse entering into negotiations with the faculty collective bargaining agent on the grounds that the faculty in this private institution enjoyed a great deal of autonomy and exercised significant influence over university affairs. As such, they were considered as managerial personnel, and, therefore, not protected by the National Labor Relations Act. This milestone decision cast a shadow over
faculty unionization in private universities and, with little chance for reversal of this decision, the impact "remains substantial" (Douglas & Or, 1990). By the beginning of 1990, 65 bargaining agreements were in place in the private sector (approximately the same number as in 1979), in contrast to public sector contracts which grew from 270 to 384 over the same period (Douglas & Or, 1990: 110).

Despite the dampening effect of Yeshiva on faculty unionization, by the beginning of 1990, 922 public and 85 private U.S. college campuses were organized. This represented approximately 35 percent (217,398) of the 600,000 or so full-time faculty in this country (Douglas & Or, 1990: 108-114). This also signified a significant jump from 25-30 percent of university faculty who, in 1979, were reported to be covered by collective bargaining contracts (Cameron, 1982).

Based on the above statistics and longitudinal studies tracking changes in the content of faculty union contracts (see Williams & Zirkel, 1989, for a review of such literature), the collegiate governance system appears to be giving way to the process of collective bargaining for determining wages and conditions of employment. This increased role of unions on college campuses, in fact, may be a response to an eroding faculty governance system (Raelin, 1989). Whatever the cause, the resulting changes have provided the impetus for the emerging body of collegiate collective bargaining literature. The preponderance of existing studies on the subject has dealt with such issues as faculty union structure (Bognanno & Suntrup, 1975), extent of faculty unionization (Aussieker & Garbarino, 1973; Garbarino, 1980), faculty unionism and organizational performance (Benson, 1973; Cameron, 1982), faculty satisfaction with unions (Gomez-Mejia & Balkin, 1984), faculty attitudes toward unionization (Bignoness, 1978; McShane, 1986), and administrators' attitudes toward faculty unionization (Odewahn & Spritzer, 1976). Several studies also have examined factors associated with faculty union voting behavior and election outcomes (e.g., Dworkin & Lee, 1985; Hammer & Berman, 1981; Zalesny, 1985). However, most investigations of employee unionization, both in university and in other settings, are criticized for lacking explicit theoretical frameworks. Many only "provide(ing) post hoc theoretical explanations for the empirical relationships they uncover" (Heneman & Sandver, 1983: 552). Critics indicate (Hammer & Berman, 1981; Zalesny, 1985) that sometimes, even when conceptual models are employed, only a relatively small set of variables representing the unionization process are included as facilitators or inhibitors of unionization (e.g., Dworkin & Lee, 1985; Lawler & Walker, 1980; Raelin, 1989; Walker & Lawler, 1979). As a consequence, existing predictive models of collective bargaining election outcomes, may be less accurate than they could be. In addition, "our understanding of the context surrounding successful or unsuccessful faculty unionization drives lacks the sophistication that the complexity of the issue requires" (Zalesny, 1985: 244). Therefore, further studies of union voting incorporating a more comprehensive set of correlates, correlates which are grounded in sound theory, are needed.
In this study, the authors take Hammer and Berman's (1981) view that investigations of faculty unionism should adopt research models that incorporate a more comprehensive set of relevant correlates of voting behavior. Such models should represent more complete conceptualizations of the unionization process and offer fuller explanations of the factors and dynamics that contribute to an election's outcome. The call for more inclusive studies is entirely consistent with the actual extension, over the past two decades, of faculty unions' sphere of contractual influence. Today's contracts extend beyond the "bread and butter" issues (e.g., pay and benefits) and often incorporate provisions covering personnel, governance, and academic issues (Williams & Zirkel, 1989). The above shifts, Williams and Zirkel (1989) argue, reflect new and more diverse concerns that prompt faculty to vote pro union and organize to bargain collectively.

As such, the present study attempts to concurrently examine a relatively comprehensive and diverse set of factors representing various economic, political, and ideological perspectives on faculty unionism in public institutions in order to: (a) develop a theory based model that reflects a fuller account of faculty voting behavior in election drives, (b) examine the relative power of various factors in explaining electoral outcomes, and (c) identify the most potent subset of faculty vote predictors in collective bargaining election campaigns. The related theoretical underpinnings for inclusion of the variables in this investigation also are offered. In addition, important variables and concepts (e.g., political attitudes, professionalism) that appear to be relevant, but which were not previously given prominence in the collegiate collective bargaining literature, are also incorporated.

The study presented here also addresses a number of concerns regarding methodologies used in research on employee unionization. For example, as Heneman and Sandver (1983) point out in their review article, a fundamental problem with many employee unionization studies is their reliance on "a retrospective research design, in which attitudinal independent variables are gathered after an election and hence after the employees' actual vote. It is thus quite possible that voters responded in such a manner as to be consistent with, or to justify, their vote" (Heneman & Sandver, 1983: 554). These authors go on to suggest that such "decision bolstering" is one plausible explanation for the relationships found between attitudes and voting behavior. Empirical studies are clearly necessary to examine the extent and impact of such decision bolstering. Meanwhile, however, the present study opts for conservatism and adopts a "predictive design" in which all data were collected shortly before faculty's actual vote. Heneman and Sandver suggest that predictive designs, such as that used in this study, are "superior to retrospective designs, since they reduce decision bolstering as an explanation of their results" (1983: 554).

Also, some unionization studies have investigated voting intent and its correlates in relation to hypothetical elections (e.g., Bigoness, 1978; Deshpande & Fiorito, 1989; Dworkin & Lee, 1985; Youngblood, DeNisi, Molloston, & Mobley, 1984). That is, study subjects have been asked how they would vote if a union representation election were to be held at their workplace. But, the
relationship between voting intent and actual vote in such studies is "somewhat uncertain" (Deshpande & Fiorito, 1989: 895). As such, the present study examines unionism in the context of a true union certification election. For studies involving actual elections, Premack and Hunter (1988) recently reported a meta-analytic correlation of approximately .80 between intention to vote for/against a union and actual vote. They concluded that for such studies, both intent and actual vote measure "the same underlying construct" (1988: 232).

**Research Model**

A close examination of various perspectives on employee unionization points to three salient determinants of voting behavior in collective bargaining elections. These include employees' perceptions of the work context, their general socio-political beliefs and attitudes, and their specific expectations regarding union instrumentality.

**Work Context**

"Work context" has received considerable attention in the existing collective bargaining literature as an explanation for employee unionism (DeCotiis & LeLouarn, 1981; Summers, Betton, & DeCotiis, 1986). Job dissatisfaction, professionalism, and trust in administration are three of the more prevalent variables related to work context.

The industrial relations perspective, that the decision to join a union is primarily a consequence of employee dissatisfaction with conditions of employment, is one commonly cited explanation for the outcome of unionization elections (Bigoness, 1978; Getman, Goldberg, & Herman, 1976; Hammer & Berman, 1981; Schriesheim, 1978; Walker & Lawler, 1979). Satisfaction with specific aspects of the job and overall job satisfaction have been found, with remarkable consistency, to be negatively related to attitudes toward unionization and a pronoun vote (see Heneman & Sandver, 1983). In addition, several studies (e.g., Bigoness, 1978; Schriesheim, 1978) have found satisfaction with economic issues (for example, pay and benefits) to be more strongly related to voting behavior than satisfaction with non-economic factors (e.g., the job itself, job involvement). Equity theory may contribute to our understanding of the satisfaction-unionism relationship. Dissatisfaction, Summers and his colleagues (1986) argue, can arise because the absolute level of a desired outcome is below some expected level and/or because of inequities that are perceived in relation to a comparison person's outcomes. When the comparison of outcomes, given inputs, is unfavorable, it triggers search behavior for a leveling mechanism—such as a union—that serves to increase outcomes while holding inputs constant (Summers et al., 1986).

While many studies have focused on a deprivation and dissatisfaction model of collective bargaining, a few have argued that a pronoun vote is primarily motivated by the desire of a faculty to improve its power position vis-a-vis the administration (Hammer & Berman, 1981). Gamson's (1968) theory of power, discontent, and distrust in political systems provides the conceptual...
underpinning for this contention. Gamson (1968) suggests that institutions are comprised of competing interests groups who try to induce those in power to make decisions that favor their particular group. However, decisions made by those in power are rarely able to satisfy all competing groups. The resulting discontent with decision outcomes, therefore, leads to alienation and loss of trust. When employees lack trust in the ability and/or willingness of administrators to make decision in their interest, unions become an attractive countervailing force against arbitrary and unfavorable treatment and a means toward redistribution of power and gaining control. This political perspective suggested by Gamson parallels Hirschman’s (1970) “exit, voice, and loyalty” framework. According to Hirschman, dissatisfied employees, if disappointed with traditional voice mechanisms (e.g., complaining directly to management), will either leave the organization (exit) or resort to an alternate option such as unionism.

While, as suggested above (Gamson, 1968), lack of trust comes from discontent with the outcomes of administrative decisions, it can also influence dissatisfaction with subsequent outcome attainment (Hammer & Berman, 1981). Regardless of the direction of causality, trust and satisfaction should be positively related to each other, while negatively related to attitudes toward unionization and a prounion vote.

Among the more controversial of work context variables is professionalism and its compatibility with unionism. Professionalism is a function of engaging in prolonged specialized training in a body of abstract knowledge, relative autonomy in performing the job role, stronger emphasis on service rather than personal gain, and existence of and participation in professional associations (Bigoness, 1978; Peterson, 1972; Raelin, 1989). The debate over professionalism and its relation to unionism seems to center on the question of which—unionization or deprofessionalization—comes first. Does a union, with its standard operating and value systems, undermine much of what would be considered “professional” about a given occupation? Or, do professionals experience significant deprofessionalization before they resort to unionization? In a study conducted by Herman and Skinner (1975), fifty percent of the faculty surveyed were of the opinion that collective bargaining and philosophy of union membership was inconsistent with professional role affiliation and faculty role expectations concerning personal autonomy and responsibility. Raelin (1989) also examined the above issue. He stated that from a theoretical perspective unionization can deprofessionalize an occupation. However, he argued that generally by the time unionization becomes a viable consideration, the profession, in fact, has already experienced a decline in professionalization. According to Raelin (1989: 105), “the source of the deprofessionalization is not the presence of a union, as much as the occupation’s deteriorating economic position and bureaucratization.” In other words, when university faculty are treated as professionals and are held to high standards of professional character and practice by their academic units, they are likely to be more satisfied, and less apt to organize for collective negotiations. Results of a study using American and Swedish teachers has already produced tentative support for the plausibility.
of this proposition (see Peterson, 1972). Regardless of whether the direction of causation between professionalism and faculty unionism is unidirectional or reciprocal, a negative correlation between these two variables is expected.

**Individual Beliefs and Attitudes**

It both stands to reason and has been supported by research (Getman et al., 1976; Schreisheim, 1978) that attitudes and beliefs about unions are predictive of voting behavior. However, it is equally clear that positive attitudes do not necessarily assure, nor do negative attitudes necessarily preclude a prounion vote. For instance, an individual could believe that collective bargaining would be instrumental in securing valent outcomes, yet could vote against the union because of a strong anti-union belief system. Similarly, a prounion vote could be cast because of favorable general attitudes toward unions even though the voter expects little in the way of desired outcomes if the union is certified. Recent studies call for recognizing such distinctions between union instrumentality beliefs and general attitudes toward unions (DeCotiis & LeLouarn, 1981; Deshpande & Fiorito, 1989; Summers et al., 1986).

Union instrumentality represents one's perceptions about the impact of unions, whereas general attitudes toward unions portray a general affect toward them and are a reflection of their broader image. Furthermore, each of these two constructs also may be conceptualized in two different ways (Deshpande & Fiorito, 1989) based upon whether one's frame of reference is specific unions seeking representation in one's workplace, or unions in the abstract (i.e., as an institution). The four resulting constructs are exemplified by such statements as "a union raises my wages"—instrumentality, specific; "unions raise wages"—instrumentality, abstract; "my union is corrupt"—general attitudes, specific; and "unions are corrupt"—general attitudes, abstract (e.g., Deshpande & Fiorito, 1989; Kochan, Katz & McKersie, 1986; McShane, 1986; Summers et al., 1986; Youngblood et al., 1984; Zalesny, 1985).

Bok and Dunlop (1970) and Poole, Mansfield, Blyton, and Frost (1982) suggest that individuals hold beliefs about unions prior to entering employment relationships and regardless of the extent of their prior contact with unions. Evidence (Feather, 1979; Himmelweit, Humphreys, Jaeger, & Katz, 1981) also suggests that such beliefs are determined by the individual's deeply-rooted ideology and political-economic values (e.g., liberalism/conservatism). People with more liberal political views generally have more positive opinions of labor unions (Getman et al., 1976; Krahn & Lowe, 1984; McShane, 1986). Finally, studies have shown support for a link between positive and negative beliefs about groups, such as unions and political behavior such as voting (Himmelweit et al., 1981).

**Perceived Union Instrumentality**

Contrary to the individual's general beliefs (about unions) that are relatively stable over time, specific perceptions with respect to union instrumentality are susceptible to change during an election campaign due to issue-type criteria.
Figure 1. Model of Faculty Union Voting Behavior

(Summers et al., 1986). The concept of perceived instrumentality is based upon the expectancy paradigm of attitude formation and behavior (Lawler & Walker, 1980). Within this paradigm, the motivation to engage in a behavior (e.g., vote for/against a union) is viewed as a function of the expectations of the behavior's
outcome. Specifically, an individual behaves in ways that he or she perceives to be instrumental to the attainment of personally valent outcomes. As such, a university faculty's perceived union instrumentality refers to his/her expectations about a union's impact regarding such issues as quality of education, fairness of personnel decisions, equity in resource allocation, and the like. It has been argued that union instrumentality is a stronger predictor of voting behavior than are general attitudes toward unions (Deshpande & Fiorito, 1989; Summers et al., 1986). In fact, several studies in different organizational settings have reported perceived instrumentality as the single largest contributor to a pronounced vote (e.g., Brett, 1980; DeCotiis & LeLouarn, 1981; Deshpande & Fiorito, 1989; Heneman & Sandver, 1983; Youngblood et al., 1984).

Figure 1 illustrates a schematic model of faculty union voting behavior that captures the essence of the various relationships presented in the above overview. It also depicts the direction of hypothesized relationships among variables in the model.

Methodology

Data Collection and the Sample

Data for this study were collected from faculty members in three midwestern universities (all under the same governing board) that recently, and simultaneously, have undergone campus-wide collective bargaining elections, with two unions represented on the ballot. To guard against the possible biasing effects of “decision bolstering” mentioned earlier, questionnaire mail-outs to these individuals were planned to precede the elections (by approximately three weeks), and were properly timed to capture faculty attitudes and voting intentions just prior to voting, at a time when faculty were most likely to have been made aware of many relevant election issues. Keeping the time interval between data collection and voting to a minimum was also important because the correlation between vote intent and actual vote tends to rise with a decrease in time elapsed between the two (Graen & Ginsburgh, 1977). In the case of the present study, breakdown of actual votes reported after the elections was quite consistent with that of voting intentions expressed in the survey, indicating a high criterion validity for the latter variable. The cover letter accompanying the questionnaire stated that the research was an independent project with no sponsorship by any of the parties involved in the election.

Of the 1,672 anonymous questionnaires mailed out to all full-time faculty members of the three institutions, 532 (32 percent) were returned, and 511 (30 percent) were sufficiently completed to be usable in data analysis. However, observations with missing values on one or more variables, 80 in this case, were excluded when performing multivariate analysis. The response rates from the three institutions were 27 percent for campus A, 33 percent for B, and 29 percent for C. Breakdown of voting intent (against, in favor, and undecided) expressed in the survey was 37, 51, and 12 percent for campus A; 61, 27, and 12 percent for B; and 49, 40, and 11 percent for C, respectively.
Seventy-eight percent of the respondents were male and 79 percent were married. The highest degree held for 19 percent of the sample was masters, while 81 percent held the doctorate. Tenured faculty made up 76 percent of the sample, 19 percent were tenure-track faculty, and 5 percent were non-tenure track. Professors, associate professors, assistant professors, and instructors made up 40, 32, 24, and 4 percent of the sample, respectively. The above demographic distribution of the research sample provides a reasonable parallel with that of the faculty population in the three universities surveyed. The faculty population in these institutions were comprised of 72 percent males and 74 percent doctoral degree holders. Sixty percent of the group were tenured, 29 percent were tenure-track, and 19 percent held non-tenure track positions. Finally, professors, associate professors, assistant professors, and instructors accounted for 36, 28, 28, and 8 percent of the faculty population, respectively.

Variables and Instrumentation

Research involving institutions of higher education requires the recognition that they are designed to operate differently than their business counterparts. For example, performance evaluations, and promotion and tenure decisions in these organizations are often arrived at by a consensus of peers, and not by management. This is contrary to the way similar issues are ordinarily addressed in other organizational settings. As such, selection and operationalization of research variables for explaining and predicting faculty unionism must reflect the distinct characteristics of these organizations and their members, and should not be based simply upon "convenience or availability," as has been so often the case in previous unionization research (Heneman & Sandver, 1983: 552). Such issues were of paramount consideration in the design of this project.

Perceived union instrumentality was measured by asking the respondents to rate (on a seven-point scale) their degree of agreement/disagreement with 20 statements indicating possible consequences of collective bargaining at their institution in relation to university governance, academic, and personnel issues. Sources of the above items included the campaign literature and newspaper accounts of the election drive, as well as statements made by representatives of the bargaining agents, university administration, and faculty.

To measure satisfaction with various aspects of the job, selected items on the Purdue Teacher Opinionnaire (Bentley & Rempel, 1980) were adapted for application in a university setting. Next, these were supplemented with new items pertaining to distinct characteristics of faculty positions. Finally, these items were combined to form several multi-item scales capturing satisfaction with supervision, pay and benefits, job demands (teaching, research and service), teaching context (e.g., class size, schedule, number of preparations, opportunity to choose courses, etc.), facilities and support services (e.g., travel, graduate assistants, supplies, clerical support, etc.), performance, tenure, and promotion decisions, and support received from the institution’s governing board. Factor analysis (not reported here) of all satisfaction items clearly supported construction of the above scales. A measure of overall job satisfaction was also
obtained by asking each respondent to rate his/her overall satisfaction with the job.

Trust in administrative decision making was measured with a three item, seven-point scale (1=completely distrust, to 7=completely trust) containing items related to decisions made by the university, college, and department administrations (Hammer & Berman, 1981). A four-item scale was used to tap general attitudes toward labor unions in the abstract. Respondents were asked to indicate the extent to which they agreed or disagreed (using seven-point scales) with statements describing unions as essential, corrupt, too strong, and unnecessary (Youngblood et al., 1984). A seven-item Likert scale was used to assess professionalism. Respondents were asked to indicate (using a seven-point scales) if their academic units: (a) afforded faculty sufficient decision making power and autonomy to carry out their responsibilities; (b) expected faculty to perform research, engage in professional development activities, and be active in professional associations; and (c) required appropriate doctoral degrees as an essential condition of employment. Political attitudes were measured with eight items from the Thurstone Liberalism-Conservatism Scale (Wright & Hicks, 1966).

Cronbach’s alpha reliability coefficients for all multi-item scales were computed and found to be quite satisfactory. They ranged from a high of 0.92 for union instrumentality to a low of 0.70 for the liberalism-conservatism scale (see Table 1).

Voting behavior was captured by responses to the following question: “If the election were held today, would you vote in favor or against faculty unionization?” With regard to the response options for this variable, as Summers et al. (1986) recently noted, and unlike what most previous unionization studies have assumed (see, for example, DeCotiis & LeLouarn, 1981; Zalesny, 1985), voting intention is not a simple for-against dichotomy. Treating it as one can contaminate research results by “forcing” undecided individuals into one of these (for or against) groups. Therefore, to be able to identify the undecided individuals (50 of them in this case), three response options (in favor, against, and undecided) were provided.

Several demographic variables were also included in the survey. These were age, sex, marital status, rank, highest degree held, tenure status, salary level, family income, years of teaching at the university level, number of years at the present institution, and intentions to leave the institution.

**Data Analysis**

Three-group discriminant analysis was employed as the primary method of data analysis for this study. This procedure involved two different steps, model development and model validation. As such, discriminant functions representing a multivariate model of faculty’s union voting behavior were first developed using data obtained from the three universities surveyed. Then, magnitude of discriminant loadings were examined to determine the relative power of the independent variables. Next, the model’s validity and predictive power/accuracy was established by using it to predict voting behavior on the three campuses.
Results and Discussion

Table 1 presents summary statistics on and correlation coefficients among all research variables. According to the table, the research data strongly supports the hypothesized relationships among perceptual (non-demographic) independent variables. Of the seventeen correlations between work context variables (i.e., professionalism, trust in administration, and satisfaction variables), all but one are positive and statistically significant (at $p = < .001$ level). The largest correlation coefficients in this group are between trust in administration and satisfaction with pay and benefits; supervision; performance, tenure, promotion decisions; and overall job satisfaction (all correlations larger than or equal to .60). Thus, as hypothesized in the research model, and consistent with earlier research findings, faculty distrust of administrative decisions is in fact strongly related to both faculty discontent with various job aspects (e.g., Hammer & Berman, 1981) and the extent to which faculty are treated in a manner consistent with standards of professional practice by their academic units (Raelin, 1989). In addition, as expected (e.g., Getman et al., 1976; Krahn & Lowe, 1984), Table 1 shows a strong correlation between political attitudes (liberalism) and general attitudes toward unions ($r = .53$, $p = < .001$). Specifically, the more liberal the faculty in their socio-political views, the more favorable they tend to be in their cognitive dispositions toward unions in general.

Table 1 further supports the presence of significant relationships between perceived union instrumentality and all other perceptual variables ($p = < .001$ in all cases), with general attitudes toward unions, pay and benefits satisfaction, and trust in administration being the strongest correlates ($r = .60$, $-.53$ and $-.50$, respectively). This reaffirms the model’s contention that faculty perceptions of union instrumentality are significantly impacted by both work context and socio-political beliefs. It also is interesting to note that, with the exception of pay level, demographic characteristics explain very little if any of the variations in the perceptual variables. Finally, as predicted, based upon the correlation results, all perceptual variables are clearly related to voting behavior, the dependent variable in the research model. These, however, may simply represent spurious relationships due to intercorrelations among the independent variables. Therefore, multivariate discriminant analysis is utilized to obtain a clearer picture of the true relationships of faculty voting behavior with demographic and perceptual variables.

Results of the Multivariate Discriminant Model

Table 2 presents the results of the discriminant analysis with faculty vote as the criterion and the remaining variables as predictors. It is clear from the table that of the two resulting discriminant functions only one, Function 1, is statistically significant (canonical correlation $= .84$, $p = < .001$). In fact, this function accounts for over ninety-seven percent of the model’s total discriminating power. Thus, the discussion that follows for the most part will focus on this function only.
### Table 1. Descriptive Statistics and Pearson Correlation Coefficients

<p>| Variables                      | Mean (s.d.) | alpha | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|-------------------------------|-------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1. Vote (prounion)            | 1.87        | 0.94  | *  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 2. Professionalism           | 5.72        | 0.91  |    | 0.74| -0.16|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3. Pay &amp; Benefits Satisfacion| 3.46        | 1.51  |    | 0.83| -0.48| 0.20|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 4. Supervision Satisfacion   | 4.90        | 1.37  |    | 0.87| -0.31| 0.46| 0.35|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 5. Job Demands Satisfacion   | 4.56        | 1.37  |    | 0.78| -0.24| 0.21| 0.35| 0.34|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 6. Teaching Context Satisfacion| 5.52      | 1.06  |    | 0.79| -0.25| 0.35| 0.33| 0.39| 0.44|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 7. Facilities &amp; Support Satisfacion| 4.27 | 1.31  |    | 0.86| -0.32| 0.24| 0.52| 0.34| 0.42| 0.42|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 8. Performance, Tenure, Promotion Satisfacion| 4.72 | 1.64  |    | 0.91| -0.39| 0.39| 0.54| 0.60| 0.38| 0.43| 0.47|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 9. Governing Board Satisfacion| 2.80        | 1.55  |    |    | -0.30| 0.03| 0.56| 0.16| 0.26| 0.19| 0.40| 0.28|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 10. Overall Job Satisfaction | 5.03        | 1.49  |    |    | -0.35| 0.29| 0.53| 0.51| 0.38| 0.48| 0.52| 0.58| 0.34|    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 11. Trust in Administration   | 4.36        | 1.46  |    | 0.78| -0.47| 0.37| 0.60| 0.66| 0.42| 0.43| 0.50| 0.63| 0.40| 0.62|    |    |    |    |    |    |    |    |    |    |    |    |
| 12. Political Attitudes (Liberalism) | 4.75 | 0.86  |    | 0.70| -0.05| -0.19| -0.06| -0.02| -0.04| -0.16| -0.01| -0.23| -0.10| -0.11|    |    |    |    |    |    |    |    |    |    |    |    |
| 13. General Attitudes Toward Unions| 4.34        | 1.28  |    | 0.81| 0.58| -0.07| -0.33| -0.11| -0.09| -0.19| -0.25| -0.17| -0.26| -0.22| -0.28| 0.53|    |    |    |    |    |    |    |    |    |    |    |    |    |</p>
<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Correlation Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Union Instrumentality</td>
<td>3.74</td>
<td>0.34</td>
<td>0.81 -0.23 -0.53 -0.34 -0.32 -0.27 -0.36 -0.44 -0.33 -0.39 -0.50 -0.30 -0.60</td>
</tr>
<tr>
<td>15. Age</td>
<td>3.76</td>
<td>0.34</td>
<td>* -0.15 -0.02 -0.03 -0.14 -0.02 -0.10 -0.07 -0.01 -0.04 -0.04 -0.06 -0.02 -0.08 -0.13</td>
</tr>
<tr>
<td>16. Sex (female)</td>
<td>0.22</td>
<td>0.02</td>
<td>* -0.03 -0.06 -0.03 -0.01 -0.16 -0.05 -0.06 -0.09 -0.01 -0.01 -0.04 -0.06 -0.05 -0.01 -0.17</td>
</tr>
<tr>
<td>17. Pay Level</td>
<td>4.45</td>
<td>0.16</td>
<td>* -0.11 -0.18 -0.22 -0.03 -0.15 -0.20 -0.20 -0.25 -0.12 -0.18 -0.15 -0.07 -0.08 -0.18 -0.52 -0.33</td>
</tr>
<tr>
<td>18. Degree (Doctorate)</td>
<td>0.81</td>
<td>0.39</td>
<td>* -0.01 -0.20 -0.01 -0.10 -0.02 -0.01 -0.01 -0.18 -0.08 -0.02 -0.02 -0.11 -0.11 -0.01 -0.16 -0.19 -0.37</td>
</tr>
<tr>
<td>19. Academic Rank</td>
<td>3.09</td>
<td>0.88</td>
<td>* -0.02 -0.07 -0.03 -0.02 -0.09 -0.14 -0.07 -0.22 -0.05 -0.09 -0.06 -0.01 -0.02 -0.09 -0.54 -0.28 -0.71 -0.49</td>
</tr>
<tr>
<td>20. Tenure Status (Tenured)</td>
<td>0.72</td>
<td>0.45</td>
<td>* 0.03 -0.02 -0.03 -0.03 -0.01 -0.07 -0.03 -0.15 -0.06 -0.04 -0.02 -0.01 -0.04 -0.03 -0.43 -0.14 -0.38 -0.18 -0.51</td>
</tr>
<tr>
<td>21. Years Teaching</td>
<td>3.60</td>
<td>1.36</td>
<td>* 0.11 -0.01 -0.08 -0.14 -0.04 -0.08 -0.01 -0.04 -0.03 -0.01 -0.09 -0.03 -0.04 -0.08 -0.71 -0.23 -0.58 -0.19 -0.65 -0.56</td>
</tr>
<tr>
<td>22. Years at Institution</td>
<td>3.16</td>
<td>1.43</td>
<td>* 0.14 -0.02 -0.08 -0.14 -0.02 -0.11 -0.03 -0.04 -0.03 -0.01 -0.08 -0.06 -0.01 -0.09 -0.67 -0.20 -0.52 -0.12 -0.58 -0.59 -0.86</td>
</tr>
<tr>
<td>23. Intentions to Leave Institution (in years)</td>
<td>3.38</td>
<td>0.89</td>
<td>* 0.04 -0.09 -0.05 -0.10 -0.02 -0.13 -0.07 -0.17 -0.03 -0.23 -0.11 -0.05 -0.06 -0.04 -0.04 -0.05 -0.11 -0.07 -0.16 -0.17 -0.18 -0.19</td>
</tr>
<tr>
<td>24. Position Status (Faculty)</td>
<td>0.96</td>
<td>0.20</td>
<td>* 0.01 -0.07 -0.02 -0.02 -0.05 -0.08 -0.04 -0.04 -0.04 -0.07 -0.03 -0.01 -0.01 -0.02 -0.05 -0.06 -0.13 -0.05 -0.08 -0.02 -0.03 -0.01 -0.02</td>
</tr>
</tbody>
</table>

Notes: * = single item  
<.05  
<.01  
<.001
Table 2. Results of Discriminant Analysis on Voting Behavior

<table>
<thead>
<tr>
<th>Discriminant Variables</th>
<th>Function 1</th>
<th></th>
<th>Function 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Univariate</td>
<td>Discrim.</td>
<td></td>
<td>Discrim.</td>
</tr>
<tr>
<td></td>
<td>F-Ratios</td>
<td>Weights</td>
<td>Loadings</td>
<td>Weights</td>
</tr>
<tr>
<td>Union Instrumentality</td>
<td>416.4***</td>
<td>1.12</td>
<td>0.93*</td>
<td>0.03</td>
</tr>
<tr>
<td>General Union Attitudes</td>
<td>108.7***</td>
<td>0.11</td>
<td>0.40*</td>
<td>0.57</td>
</tr>
<tr>
<td>Trust in Administration</td>
<td>60.3***</td>
<td>-0.21</td>
<td>-0.39*</td>
<td>0.25</td>
</tr>
<tr>
<td>Pay &amp; Benefits Satis.</td>
<td>62.2***</td>
<td>-0.02</td>
<td>-0.37*</td>
<td>0.08</td>
</tr>
<tr>
<td>Perform.-Ten.-Promo. Satis.</td>
<td>31.0***</td>
<td>0.02</td>
<td>-0.28*</td>
<td>-0.14</td>
</tr>
<tr>
<td>Facilities &amp; Support Satis.</td>
<td>27.1***</td>
<td>-0.01</td>
<td>-0.25*</td>
<td>-0.04</td>
</tr>
<tr>
<td>Overall Job Satis.</td>
<td>26.5***</td>
<td>0.08</td>
<td>-0.24*</td>
<td>-0.14</td>
</tr>
<tr>
<td>Supervision Satis.</td>
<td>24.1***</td>
<td>-0.02</td>
<td>-0.24*</td>
<td>-0.15</td>
</tr>
<tr>
<td>Teaching Context Satis.</td>
<td>19.1***</td>
<td>-0.15</td>
<td>-0.24*</td>
<td>0.30</td>
</tr>
<tr>
<td>Job Demands Satis.</td>
<td>16.4***</td>
<td>0.01</td>
<td>-0.23*</td>
<td>0.18</td>
</tr>
<tr>
<td>Governing Board Satis.</td>
<td>20.3***</td>
<td>0.02</td>
<td>-0.20*</td>
<td>-0.07</td>
</tr>
<tr>
<td>Liberalism</td>
<td>22.4***</td>
<td>0.13</td>
<td>0.20*</td>
<td>-0.24</td>
</tr>
<tr>
<td>Professionalism</td>
<td>6.6***</td>
<td>0.14</td>
<td>-0.15*</td>
<td>0.32</td>
</tr>
<tr>
<td>Pay Level</td>
<td>5.5**</td>
<td>-0.03</td>
<td>-0.14*</td>
<td>-0.02</td>
</tr>
<tr>
<td>Academic Rank</td>
<td>3.6*</td>
<td>0.06</td>
<td>-0.08</td>
<td>0.63</td>
</tr>
<tr>
<td>Age</td>
<td>6.2**</td>
<td>0.05</td>
<td>0.07</td>
<td>-0.07</td>
</tr>
<tr>
<td>Degree (Doctorate)</td>
<td>2.1</td>
<td>-0.19</td>
<td>-0.06</td>
<td>0.31</td>
</tr>
<tr>
<td>Intentions to Leave (Years)</td>
<td>0.6</td>
<td>0.02</td>
<td>0.05</td>
<td>-0.33</td>
</tr>
<tr>
<td>Years at Institution</td>
<td>5.4**</td>
<td>0.12</td>
<td>0.04</td>
<td>0.35</td>
</tr>
<tr>
<td>Years Teaching</td>
<td>3.8*</td>
<td>-0.05</td>
<td>0.04</td>
<td>-0.39</td>
</tr>
<tr>
<td>Position Status (Faculty)</td>
<td>0.4</td>
<td>0.16</td>
<td>0.03</td>
<td>-0.40</td>
</tr>
<tr>
<td>Tenure Status (Tenured)</td>
<td>3.3*</td>
<td>-0.14</td>
<td>-0.02</td>
<td>0.59</td>
</tr>
<tr>
<td>Sex (Female) (Constant)</td>
<td>0.9</td>
<td>-0.20</td>
<td>-0.01</td>
<td>0.01</td>
</tr>
</tbody>
</table>

EIGENVALUE (% VARIANCE) 2.39 (97.20) 0.07 (2.80)
CANONICAL CORRELATION 0.84 0.25
WILK'S LAMBDA 0.28*** 0.94 n.s.

GROUP: Prounion 1.84 0.38
CENTROIDS: Undecided 0.24 -0.69
                        Against Union -1.44 -0.13

Tests of Differences Between Pairs of Groups (F-values with 23 and 390 d.f.):

Undecided Against Union
Prounion 5.66*** 40.45***
Against Union 5.11***

Notes: * For n of at least 300, loadings of ±0.11 and ±0.15 are considered significant at .05 and .01 levels, respectively (Hair et al., 1987: 249).
* p =< .05
** p =< .01
*** p =< .001

First, the F-tests of differences between pairs of groups indicate that the resulting discriminant model (in this case Function 1) finds all three of the groups to be significantly different from one another. Second, a comparison of the three group centroids associated with Function 1 suggests, as can be
expected, that the prounion and against-union voters are the groups that are most different from one another. The undecided voters ("fence-sitters") appear to be equally different from both of these groups. In fact, a comparison of the profile of the "fence-sitters" with those of the "pro" and "anti" groups (comparison not reported here) indicates that they are positioned approximately half-way between the latter two groups on virtually all significant independent variables.

Table 2 presents the independent variables' univariate F-ratios (for testing equality of means across the three groups) and their discriminant coefficients (weights) on each of the two discriminant functions. A cursory examination of the F-ratios appears to suggest that all perceptual and several demographic variables (i.e., age, rank, pay, tenure status, years of experience in the institution, and years of teaching experience) are all significant in the model. However, univariate F-ratios, (as well as standardized discriminant weights) tend to be misleading when, as in the case of the present study, predictor variables are intercorrelated (see Table 1). The significance levels of the univariate F-ratios ignore the interdependence of independent variables. Also, when two or more independent variables are correlated, discriminant weights may be split between them making these coefficients relatively small. Alternatively, the coefficient for one variable may be inflated while those for other variables are assigned a near zero non-significant weight (Hair, Anderson & Tatham, 1987; Perreault, Behrman & Armstrong, 1979). Such problems associated with the univariate F-ratios and discriminant weights can be avoided and a clearer and more accurate perspective can emerge if discriminant factor loadings are computed and utilized (Hair et al., 1987; Perreault et al., 1979).

Discriminant loadings represent product-moment correlations between each predictor variable and the discriminant function. They are similar to factor loadings in factor analysis and reflect common variance among the independent variables. As such, while discriminant weights are necessary for predictive purposes, the loadings tend to be a more useful interpretive aid (Hair et al., 1987; Perreault et al., 1979).

A close examination of discriminant loadings in Table 2 illustrates several important points. First, union instrumentality, general attitudes toward unions, and liberal socio-political attitudes are positively related while trust in administration, all measures of satisfaction, professionalism, and pay level are negatively related to a prounion vote. Furthermore, the largest discriminant loading in the table is associated with perceived union instrumentality, indicating that it is the strongest independent variable in the model (see Hair et al., 1987). This is thoroughly consistent with not only the results of other faculty unionization studies, but also with findings reported on employee unionism in non-university settings (Brett, 1980; DeCotiis & LeLouarn, 1981; Deshpande & Fiorito, 1989; Heneman & Sandver, 1983; Youngblood et al., 1984).

The salience of both union instrumentality and general union attitudes also parallels the findings of prior research (e.g., Deshpande & Fiorito, 1989; Summers et al., 1986; Youngblood et al., 1984; Zalesny, 1985). This result
accentuates the importance of making a distinction between faculty's general attitudes toward unions as an institution, and faculty's specific expectations concerning the impact of collective bargaining in their own institution with regard to such factors as quality of educational programs, equity of personnel decisions, and the nature of the university governance system.

In addition, regardless of whether lack of trust comes from faculty discontent with the outcome of administrative decisions (Gamson, 1968) or if it influences evaluation of those decisions and subsequent satisfaction with them (Hammer & Berman, 1981), dissatisfaction and lack of trust both seem to substantially contribute to a prounion vote. Also worthy of note is that while all satisfaction variables are significant, satisfaction with pay and benefits is (judging from the size of its discriminant loading) the most important of all satisfaction dimensions. This supports the notion that dissatisfaction with pay and benefits, representing faculty's concern for economic issues, bears significantly on their decision to unionize (e.g., Bigoness, 1978; Schriesheim, 1978; Zalesny, 1985). The significance of actual pay level, the only statistically significant demographic variable in the model, further attests to the crucial role of economic concerns in faculty unionization drives.

It had been argued that people with more liberal socio-political views generally have more positive opinions of labor unions and, other things equal, are more likely to cast a vote in their favor (Getman et al., 1976; Krahn & Lowe, 1984; McShane, 1986). Evidence presented here corroborates the salience of this generally overlooked issue to voting behavior in election campaigns.

Professionalism appears to be the weakest of all perceptual discriminators in the model. The relatively large mean and small variation of this variable ($\bar{x} = 5.75$ on a 7-point scale, s.d. = .92; see Table 1) suggests that study participants, on the whole, had very favorable perceptions about the professional treatment they received from their academic units. Nevertheless, even the limited differences that existed among participants regarding this factor seem to have been of enough significance to play a determining role in their decisions to vote for or against collective bargaining.

Finally, as expected, demographics (with the exception of pay) are not significant and are less powerful than all perceptual independent variables. In other words, the apparent univariate relationships between some demographic variables (i.e., age, rank, tenure status, and length of teaching and institutional experience) and faculty unionism are primarily of a spurious nature and tend to disappear once effects of more relevant (and mostly attitudinal) variables are controlled for. Therefore, as depicted in the model, and consistent with previous research findings (Deshpande & Fiorito, 1989, Hammer & Berman, 1981; Heneman & Sandver, 1983), demographics do not appear to play an important role in the employee unionization process. Faculty concerns that bear on the outcome of collective bargaining elections evidently transcend such characteristics as gender, academic rank, and tenure status. This reaffirms the notion that within any given pay level there are no demographic segments of a faculty that can be categorized as "union-type."
Table 3. Classification Matrix Based on Discriminant Function  
(n = 431)

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>Actual Total</th>
<th>Predicted Group Membership</th>
<th>Against Union</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prounion</td>
<td>Undecided</td>
<td></td>
</tr>
<tr>
<td>Prounion</td>
<td>159</td>
<td>137</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>86%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Undecided</td>
<td>50</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>24%</td>
<td>34%</td>
<td></td>
</tr>
<tr>
<td>Against Union</td>
<td>222</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>3%</td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Percent of Sample Correctly Classified = 84%  
Proportional Chance Criterion = 41%

Validation of the Discriminant Model

To establish validity and predictive accuracy of the discriminant model described above, it was applied to the data obtained from the three campuses. Table 3 shows this result, indicating that the discriminant model has considerable accuracy in predicting votes. Specifically, eighty-four percent of the votes (362 out of 431) were correctly classified as prounion, anti-union, or undecided on the basis of information contained in the model. This is substantially larger than the proportional chance criterion of forty-one percent, representing the a priori chance of correct classification (Hair et al., 1987: 99). In addition, the odds for accurate classification increase to ninety-one percent if one considers only the “committed” voters (the “pro” and “anti” groups). The explanatory power and predictive accuracy of the model is also very favorable when compared to other empirical studies on union voting behavior [see, for example, studies reported in the Heneman and Sandver (1983) and LeLouarn (1980) reviews].

In short, the results of this study strongly support the relationships postulated in the research model. The variables that emerged as significant in this study represent all of the different subsets of variables on employee unionism that were presented earlier and that were incorporated into the research model. This confirms the contention that economic, political, and ideological factors each make their own unique contribution to explaining why faculty unionize and why they vote the way they do in union certification elections. Results presented in Table 2 indicate that prounion faculty tend to exhibit significantly more favorable attitudes toward unions in general, have less trust in administrative decisions, are less satisfied with various aspects of their jobs in general and “bread and butter” issues in particular, have less favorable perceptions about the way they are treated as professionals, and view collective bargaining as an effective means of instigating desirable change.

Finally, a word of caution is in order in interpreting this study’s results. Since neither longitudinal data nor causal analyses were used, definitive statements cannot be made concerning directions of causality among the
research variables. Therefore, the statistically significant relationships found should be interpreted simply as evidence of plausibility of the hypothesized/implied causal relationships.

Conclusions and Implications

In conclusion, employee dissatisfaction may arouse interest in union representation, but does not necessarily result in a prounion vote. The model of faculty union voting behavior developed and tested here appears to suggest that for university faculty to express a preference for collective bargaining requires: (a) dissatisfaction with current job and employment conditions, (b) distrust in administration’s ability and/or willingness to deal with faculty’s concerns, (c) a view that unionization can be instrumental in improving job and organizational conditions, (d) a rather liberal socio-political belief system, and (e) a willingness to overcome the general negative image or stereotype of unions. As such, unionization may be viewed as a process that is “triggered” by the work context (environment) through mistreatment, distrust, and dissatisfaction; is “augmented” by union instrumentality perceptions; and is solidified by liberal socio-political predispositions and favorable perceptions of unions as institutions (Youngblood et al., 1984).

The findings from this research pose a number of implications for both university administration and faculty unions. From the perspective of an administration wishing the institution to remain “union free,” recognition must be given to the fact that attitude surveys can provide accurate information about the degree to which faculty are inclined to organize for collective negotiations. Of course, the legality of surveying faculty regarding their views of labor unions or union instrumentality may be questionable, especially just preceding or during the certification campaign. Ongoing programs to assess and improve faculty satisfaction with conditions of employment, however, are advisable for they may lessen the likelihood of an election ever occurring and may increase the probability of staying union free should an election take place. The administration also should exhibit a genuine concern for making the changes that are indicated by survey results in order to foster faculty trust and confidence in administration’s commitment to faculty welfare.

In addition, administrators seeking to defeat a union in certification elections must try to weaken faculty’s perceptions of the utility of unions. That is, they need: (a) to challenge union claims of an ability to successfully deliver those outcomes valued by faculty (e.g., better pay, greater faculty role in university governance), and (b) to underscore the potential adverse effects of union membership (e.g., impairing academic excellence, increasing outside intervention in the control of university affairs, increasing rigidity in merit-based salary decisions).

A number of major policy inferences also can be drawn from a union perspective based on the research results. First, to enhance their chance of victory, unions should target their organizing campaign especially to those faculty groups in which dissatisfaction tends to be high (e.g., those more
significantly impacted by salary compression). It is far easier to interest
dissatisfied employees in unions than it is to interest those that are satisfied.
Unions also should concentrate their organizing efforts on the specific sources
of faculty discontent, administration’s inability/unwillingness to deal with them,
and the union’s capability of addressing them effectively. Finally, bargaining
agents might use surveys to determine where to focus their campaign efforts.
Such surveys could include questions regarding faculty’s attitudes toward
working conditions, as well as their socio-political value orientation, views of
unions as institutions, and perceptions of the union’s instrumentality.

In sum, this study developed a conceptual framework of faculty unionism
and empirically tested it. Results of this study generally support an integrative
model that includes economic, political, and ideological explanatory factors that
can improve our understanding of employee unionism.

Acknowledgment: This study was partially supported by a grant from the
Illinois State University Research Grant Program.

References
Relations, 12: 117-124.
Relations Research Association; 213-220.
Foundation.
Psychology, 63: 228-233.
Relations, 14: 358-363.
using union instrumentality and work perceptions. Organizational Behavior and Human Performance,
27: 103-118.
Douglas, J.M. & Or, B.G. (1990). Directory of faculty contracts and bargaining agents in institutions of
Education and the Professions, Baruch College, CUNY.
Education, 23: 375-386.
1617-1630.
221-230.
York: Russell Sage Foundation.
Graen, G. & Ginsburgh, S. (1977). Job resignation as function of role orientation and leader acceptance:
A longitudinal investigation of organization assimilation. Organizational Behavior and Human
Performance, 19: 1-17.


