

**GRADUATE STUDENT EMPLOYEES AND
THEIR PROPENSITY TO UNIONIZE:
PART II, THE ILLINOIS EXPERIENCE**

BARRY M. RUBIN

RICHARD S. RUBIN

Indiana University, Bloomington

ABSTRACT

The purpose of this research is to build on the findings in our earlier article in this journal, entitled "Graduate Student Employees and Their Propensity to Unionize: A Heuristic Approach." In that article, we identified those perceptions that determined a graduate student employee's propensity to join a union based on data collected at Indiana University. Those perceptions were measured through the application of a model that separated the psychological determinants to unionize into three categories: work environment, influence, and beliefs about unions. The results of that statistical analysis indicated that negative beliefs about unions are the strongest determinant of graduate student employees' propensity to unionize. The current research expands the analysis to include data collected from the University of Illinois, and validates and extends our initial findings.

A recent rise in graduate student unionization in universities suggests that an increased demand exists for graduate students teaching large sections and higher-level courses [1]. This is due to budgetary constraints that have prevented departments from hiring new faculty. To better use resources, universities have increasingly depended on graduate teaching assistants [2].

Interactions between graduate student employees and university administrators suggest that the traditional bread-and-butter issues of wages, hours, and working conditions are the primary topics addressed in these meetings. Our research, however, suggests that the propensity for graduate students to unionize is a more complex phenomenon involving additional factors [3].

THEORETICAL FRAMEWORK

As pointed out in our previous work, unions are driven by a pragmatic business philosophy. By analyzing several empirical studies of employee voting behavior, as well as data from the national Quality of Employment Survey, Thomas Kochan identified three distinct stages that employees go through when considering their willingness to join a union [4]. Through further analysis of these indicators Kochan also noted threshold levels of dissatisfaction and experience that must be present to bring an employee to the next stage of willingness to join a union. Kochan's analysis resulted in a model predicated on employee behaviors and beliefs that form "psychological determinants of the propensity to unionize" [4, p. 144]. These psychological determinants are divided into three main stages: perceptions of the work environment, perceptions of influence, and beliefs about unions (see Figure 1).

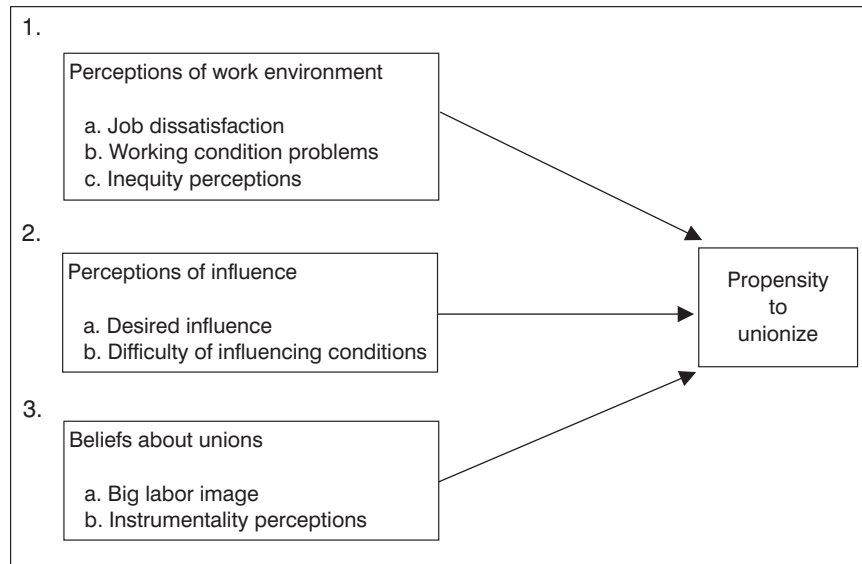


Figure 1. Psychological determinants of propensity to unionize.

Source: [4, p. 144].

The first stage identified by Kochan is the perception of the work environment. This stage addresses employees' beliefs about traditional bread-and-butter work issues of wages, hours, and working conditions. Kochan further suggested that job dissatisfaction, problems with working conditions, and perceptions of inequity are the most important variables that influence graduate student employees to seek union representation.

The second stage identified by Kochan is the perception of influence and includes two variables: desired influence and difficulty of influencing conditions. Kochan argued that employees must have a long-term perspective on their employment environment before developing a desire to change the workplace.

The third stage identified by Kochan is the belief about unions. It consists of two variables: labor image and instrumentality perceptions. Employees' present circumstances, their image of traditional employee groups, and the resulting benefits from union affiliation influence their perceptions of "big labor." Further, Kochan suggested that perceptions of union instrumentality depend on employee perceptions of their ability to influence change.

Based on these stages, Kochan constructed an explanatory model of factors that shape an employee's propensity to unionize. The resulting model was thorough, flexible, and applicable to both traditional and nontraditional work settings.

METHODOLOGY

Although Indiana University graduate employees are not represented by a union, those at the University of Illinois are. The Graduate and Professional Student Organization (GPSO) at Indiana University (Bloomington), comprised of voluntary members, serves as the "collective voice to inform the IU and Bloomington communities of graduate and professional student concerns" [5].

To test Kochan's model with both Indiana and Illinois graduate student employees, a questionnaire was prepared to measure the influence the independent variables from Kochan's model had on a graduate student's propensity to unionize. The questionnaire was validated by a focus group comprised of 20 graduate students at Indiana.

The questionnaire included three to five Likert-scale questions on each of the variables that were included from Kochan's original model. Of the seven variables in the Kochan model, two were combined (employee's desired influence in the workplace and difficulty influencing decisions) into a single variable labeled influence [7]. The six final variables were: job dissatisfaction, working conditions, inequity perceptions, influence, perceptions of big labor, and perceptions of union instrumentality. In this Likert-scale questionnaire, *strongly agree* was given a value of 5, and *strongly disagree* was given a value of 1. The questionnaire also included demographic information such as respondent's gender, field of study, employment position, level of study, age, hours worked, hours contracted, and salary.

At Indiana, 492 members of the GPSO responded, yielding a 16.5 percent response rate. The response rate at Illinois was lower, but still significant, with 108 responses.

Analysis

Factor Analysis Results

To confirm the measurement scales and validity of the six independent variables, a principal components factor analysis with a Varimax rotation was conducted. The results directly confirmed the validity of the scales for constructing four of the independent variables: job dissatisfaction, influence, perceptions of big labor, and perceptions of union instrumentality. The remaining two independent variables—working conditions and inequity perceptions—utilized scales that were supplemented by two additional questions emerging from the factor analysis.

Based on the factor analysis results, union instrumentality was also confirmed as an appropriate measure of the dependent variable, propensity to unionize. This was a composite of four of the original questionnaire items that were intended to measure the respondent's perceptions of union instrumentality. In Kochan's model, instrumentality was one of the psychological determinants of propensity to unionize [4]. For this model, it is the last stage a graduate employee must pass through before making the commitment to join a union, thus representing the respondent's propensity to unionize. If a graduate employee does not believe in unions being instrumental with respect to the collective concerns of its members, then that employee is unlikely to favor unionization, even if all other factors in favor of unionization (e.g., job dissatisfaction, working condition problems, perceptions of inequity, perceived lack of influence, and favorable perceptions of big labor), are present.

The final analytic model for a graduate student's propensity to unionize was comprised of union instrumentality as the dependent variable; job dissatisfaction, working conditions, influence, and perceptions of big labor as independent variables; and degree sought by the respondent (Ph.D. or master's) as a control variable. Inequity perceptions was removed from the model as it proved to be statistically insignificant.

Multiple Regression Analysis Results

To determine whether a relationship existed between these variables and to identify the nature of this potential relationship, multiple linear regression was utilized. The ordinary least squares (OLS) regression algorithm in SAS version 8e was employed for the analysis. Table 1 provides the results from this analysis for Indiana University, while Table 2 provides the results for the University of Illinois. The dependent variable for both regression models was propensity to

Table 1. Indiana University:
Multiple Regression Analysis of the Propensity of a
Graduate Student to Unionize with Respect to
Kochan's Psychological Determinants

Independent variable	Parameter estimate	Standardized estimate	<i>t</i> -Statistic	Prob > <i>t</i>
Job dissatisfaction	0.05283	0.03808	1.37	.1713
Working conditions*	-0.16170	-0.21908	-7.05	.0001
Influence*	-0.11753	-0.14306	-4.30	.0001
Perceptions of big labor*	0.90809	0.69834	26.94	.0001
Degree	0.37569	0.05902	2.35	.0192
Intercept*	7.70685	—	11.82	.0001
<i>F</i> -value	238.26	R^2	0.7267	
Probability > <i>F</i>	.0001	Adjusted R^2	0.7237	

*Denotes statistical significance at the 0.001 level or better.

Table 2. University of Illinois:
Multiple Regression Analysis of the Propensity of a
Graduate Student to Unionize with Respect to
Kochan's Psychological Determinants

Independent variable	Parameter estimate	Standardized estimate	<i>t</i> -Statistic	Prob > <i>t</i>
Job dissatisfaction	-0.0620	-0.0420	-0.710	.4770
Working conditions*	-0.1670	-0.2780	-4.408	.0001
Influence	0.0850	0.0880	1.347	.1810
Perceptions of big labor*	0.8140	0.7250	12.396	.0001
<i>F</i> -value	59.706	R^2	0.7090	
Probability > <i>F</i>	0.0001	Adjusted R^2	0.6970	

*Denotes statistical significance at the 0.001 level or better. $n = 103$

unionize, while the independent variables were job dissatisfaction, working conditions, influence, perceptions of big labor, and degree.

Appropriate tests were used to determine whether near-multicollinearity was obscuring the effects of the individual independent variables. These tests included the condition index for the overall regression and tolerance values for each independent variable. No evidence of significant near-multicollinearity was found among the independent variables, which allows for an unobstructed interpretation of their impacts on the dependent variable.

The regression for Indiana University has an F -statistic of 238.26 and a corresponding p -value of .0001, indicating that the overall model is statistically significant at the .0001 level and the null hypothesis of no relationship can be rejected. For the University of Illinois, the F -statistic was 59.71 with a corresponding p -value of .0001, again allowing for the null hypothesis to be rejected. The adjusted R -square value represents the variation in the dependent variable explained by all of the independent variables in the overall model. A value of 0.7237 in Table 1 reveals that the overall model explains 72.37 percent of the variation in the propensity to unionize. Table 2 reveals that only 69.70 percent of the variation in the dependent variable is explained at University of Illinois.

As Tables 1 and 2 demonstrate, the t -statistics associated with the parameter estimates indicate both working conditions and the perception of big labor have partial relationships with the dependent variable that are statistically significant at the .0001 level. Influence also has a statistically significant relationship at the .0001 level and degree at the .05 level for Indiana. Degree was measured as a dummy variable; Ph.D. received a value of 1 and master's a value of 0. The literature indicates that employees who have a longer time horizon are more likely to invest their energies to change their job conditions, a circumstance that aptly describes Ph.D. candidates over short-term master's- or professional degree-seeking students. Several other demographic questions were included on the survey such as department of study, hours contracted, hours worked, annual salary with tuition and stipend, gender, and age. None of these, however, proved to be significant in either regression.

Inequity perceptions, which is not included in either table, had an insignificant t -statistic and a very low standardized estimate and, therefore, was dropped completely from the regressions. Job dissatisfaction proved to be statistically insignificant, but was included in both final models to illustrate its lack of empirical importance. Questions that were used to measure job dissatisfaction assessed the respondents' attitudes toward the value of their work—such as “The work I do is valuable.” Because many of the respondents will be in their current positions for only a brief period of time, work value is not as important to them as typical bread-and-butter issues or general attitudes about unions.

Furthermore, job dissatisfaction—being statistically insignificant—further supports the inclusion of academic degree as an explanatory variable for the

Indiana data. Ph.D. candidates who will be on campus longer have a stronger propensity to unionize than master's degree candidates. Nonetheless, as the magnitude of job dissatisfaction (as well as perceptions of big labor) increases, so does the level of the dependent variable, holding the effects of all other independent variables constant. In other words, the more dissatisfied graduate student employees are with their work and the more favorable impression they have of unions, the more likely they will be to unionize, particularly if they are Ph.D. candidates. As positive perceptions of working conditions and influence increase, the propensity to unionize decreases. With respect to the University of Illinois, the large majority of respondents were doctoral students, suggesting that this variable should not be significant.

The standardized regression parameter estimates of 0.69834 for Indiana and 0.7250 for Illinois with respect to the respondents' perceptions of big labor, reveal that perceptions of big labor have the greatest impact on a respondent's propensity to unionize. This is a substantial finding, particularly when considering that it is followed in importance by working conditions, at a distant second, with standardized regression parameter estimates of -0.21908 and -0.2780 for Indiana and Illinois, respectively. Influence for Indiana had a standardized parameter estimate of -0.14306 , whereas that variable was insignificant for Illinois. The negative sign for the working conditions variable at Illinois is explainable due to the existence of a collective bargaining agreement that addressed this issue.

CONCLUSIONS

The analysis conducted with data from the University of Illinois confirms our initial findings, which were based only on data from Indiana University graduate student employees. Perceptions of unions play the strongest role in determining graduate student employees' propensity to unionize at both Indiana University and the University of Illinois. This is quite different from traditional employee groups where considerations of inequity perceptions, in addition to wages, hours, and working conditions are the most salient. In this research, the traditional bread-and-butter issues of wages, hours, and working conditions proved to be statistically insignificant, thus raising the import of perceptions of big labor as determinative.

As indicated in our previous article, because of the overwhelming significance of perceptions of big labor, further research into the formation of these perceptions clearly is needed. Possible considerations of respondents' past personal experiences with unions or exposure to unions could produce information on how this image is formed. In addition, questions regarding the volatility of labor-management relations among other university employees could provide insight into graduate students' images of big labor.

In contrast to the strong correlation of perceptions of big labor, inequity perceptions proved to be wholly insignificant in determining graduate student employees' propensity to unionize at both Indiana and Illinois. This reinforces the difference between graduate student employees and nonuniversity employees, who more likely would consider perceptions of inequities in the workplace to be a significant motivating factor for joining a union.

At both universities, the issue that appears to have the next greatest impact on motivating graduate student employees to join a union is working conditions. This is followed in importance by influence and job dissatisfaction at Indiana. In addition, students pursuing a Ph.D., as opposed to master's candidates, are more likely to join a union. This finding is consistent with Thomas Kochan's research, which suggests that employees with a long-term time commitment (such as Ph.D. students) will be more likely to invest time and energy into affecting their work conditions.

As in our previous research, the policy implications of these results focus on the negative perception of big labor by graduate student employees. In the past, the perception of big labor may have been both an effective and successful mechanism for addressing the needs of unrepresented workers. However, this may no longer be true, especially with nontraditional workers. The paradox may well be that the American labor movement, to attract new nontraditional workers, must improve its image to overcome the negative perception of big labor that emerges from the regression analysis. The fact that the same result was obtained at both universities serves to reinforce the findings and allows a substantial degree of generalization from these conclusions.

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Direct reprint requests to:

Richard S. Rubin
School of Public & Environmental Affairs
Center for Public Sector Labor Relations
Indiana University
Bloomington, IN 47405
e-mail: Rubin1@indiana.edu