

**A HISTORICAL LOOK AT THE EFFECT  
OF COLLECTIVE BARGAINING ON  
FACULTY SALARIES IN CALIFORNIA  
COMMUNITY COLLEGES**

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**ABSTRACT**

This study reflects a historical investigation of faculty salary determination in the California Community Colleges before and after collective bargaining enabling legislation was enacted in 1975. It attempts to discover whether measurable differences in unionization lead to measurable differences in faculty remuneration over five- and seven-year periods. In addition, the effects that the local marketplace, faculty and institutional characteristics, demand, and ability to pay may have on district-level faculty salaries were considered.

Determining the effect of unionization on salaries has been the focus of several research studies in public higher education, but few researchers have examined this question for public two-year colleges. While more two-year than four-year institutions chose bargaining agents during the 1970s, four-year institutions predominated in discussions of faculty unionism [1]. Nevertheless, the collective bargaining phenomenon in higher education has been primarily a community college phenomenon. In comparison with other higher education institutions, unionism made considerable headway in the community college sector. By 1974, over 100 two-year colleges were operating under a third contract, while only two four-year colleges were doing so.

The California Community Colleges illustrate this nationwide phenomenon. In 1977 and 1978, bargaining activity among two-year colleges was dominated by developments in California [2, 3]. Very soon after California passed collective bargaining enabling legislation (enacted September 22, 1975 and effective July 1, 1976), the faculty within its community college system rapidly began to elect

exclusive representation. Within approximately two years of the effective date of state enabling legislation, 40 percent of their community college districts (28 of the 70) were unionized. In addition, by 1979-80, four years after enabling legislation, nearly 76 percent of these college districts (53 of the 70) were unionized.

Because of such rapid union gains, the California community college districts seem especially suitable for studying the historic impact of unionization on faculty salaries. Also, because of the length of time that collective bargaining has been used in this system, it affords an examination of the impact of unionization during two different phases of development: during an initial stage and during a more mature stage.

Since the collective bargaining process is often instituted to address economic and governance issues, it is generally expected that faculty salaries would increase as a result of collective bargaining. However, historically California's faculty salaries were comparatively high. A 1974 Carnegie Commission report indicated that with respect to faculty salaries, California was a "pacesetter," ranking first in the nation. Also, according to a report by the California Postsecondary Education Commission, California's community colleges were the highest paying in the United States during the 1977-78 academic year [4]. However, considerable disparities existed among districts. During the 1977-78 academic year alone, the difference between the lowest- and the highest-paying districts' average salaries was nearly 60 percent (Palo Verde, \$15,528, and San Joaquin Delta, \$24,657). Moreover, during 1973-74, the salary difference between the lowest and highest districts was *over* 60 percent (Mendocino, \$12,446, and Ventura, \$20,589).

Because of such large disparities in salary levels across districts, it is important to identify significant explanatory variables. Also, because of the relatively large increase in unionization during the 1970s, it is important to discover and to analyze the effect that collective bargaining had on faculty salaries during that time.

## LITERATURE REVIEW

Numerous researchers have attempted to measure the factors that affect public sector salaries and wages. Generally such studies conclude that unionization may raise "pay"; but the magnitude (large, small, or nil) of this effect varies. Some studies indicated sizeable salary increases (8% to 23%) due to collective bargaining [5, 6]. However, others reported that unionization did not affect faculty salaries [7-9].

Similar studies on higher education faculty showed conflicting results. Some indicated no significant advantage, while others reported the opposite. Morgan and Kearney found that unionism was the strongest single predictor of the percentage of compensation increase over a five-year period (1969-1975) [10]. Their study generally revealed that unionized faculty experience larger monetary gains than nonunionized faculty, especially in the beginning years. Conversely, Brown

and Stone's study concluded that there appeared to be no significant impact on salary and promotions associated with the adoption of collective bargaining by college and university faculty [11].

In addition, Marshall's study clearly revealed that collective bargaining has little effect on faculty salary gains [12]. In fact, her findings indicated that nonunionized, two-year schools experienced greater salary increases than their unionized counterparts. She concluded that collective bargaining has little effect on faculty salary, and that any initial effect seems to diminish over time. Others also concluded that collective bargaining in higher education produces early advantages for unionized faculty that decline considerably over time [1, 13].

Staller's 1975 study of two-year college faculty suggested that factors other than unionization may significantly affect salaries [14]. He hypothesized that—in addition to unionization—compensation was a function of college size, teaching load, faculty opportunity costs or wage, faculty discipline or skill level, expenditures per student, and local aid. However, his study found no significant association between salary and unionization. Instead, other factors were found to be significant. For example, opportunity wage, size, teaching load, and percentage of local aid were significant determinants of salary.

Additional studies showed that variables other than unionization may have a significant impact on salary. For example, nearly 80 percent of the variance in salary for a large university was explained by seven variables used in Gordon, Morton, and Braden's study [15]. These variables included race, rank, degree, school at the university, age, seniority, and gender. Morgan and Kearney added that compensation might be influenced by the degree of professionalism among an institution's faculty (percentage of faculty with terminal degrees) [10]. Moreover, in a study of two-year colleges, Brown reported that salaries vary with geographic location and college size [16].

## HYPOTHESES

The major hypotheses of this study were that a) collective bargaining may have at least a significant short-run impact on the economic status of faculty at unionized community college districts relative to those employed at nonunionized institutions, while b) other variables may have a more significant impact over longer time periods.

To test the major hypotheses, this study sought answers to the following questions:

1. Do college districts operating with collective bargaining experience greater salary increases than those operating without collective bargaining?
2. What factors, including unionization, best explain differences in districts' salary levels over shorter and longer periods, two years and four years after unionization?

Such an investigation should prove useful in clarifying the factors that account for variations in salary levels for this segment of higher education. Equally important is the need to investigate whether collective bargaining or other factors were more significant in determining salary levels over time. For these reasons, an examination of the first seven years of bargaining in California Community Colleges seemed essential.

## METHODOLOGY

The data for this research represent all districts in the California Community Colleges for which data were available. Each of the seventy community college districts was treated as a separate unit of analysis. Thus, salary and other measures were collected on a district-by-district basis.

Two research methods were used. One employed a statistical t-test to determine whether the difference in salary gains between unionized and nonunionized districts over a five-year period was significant. The other employed a multivariate regression technique to determine whether unionization was a significant predictor of salary or whether other factors were more important. The t-test generally followed the matching technique developed by Birnbaum [17], and the regression analysis was done using an SPSS package.

### Matching Technique

Birnbaum's matching technique involved pairing institutions on several factors to control for variances within the districts under study. This matching technique was later used by Morgan and Kearney [10] and Marshall [12] as a more reliable method of comparing salary changes.

Birnbaum matched eighty-eight union and nonunion institutions by *control* (public, independent, or church-related), *curricular breadth* (university, four-year college, and two-year college), *faculty compensation level*, *geographic proximity*, and *size* in a base year. Morgan and Kearney matched forty-six institutions, and Marshall matched thirty by similar criteria (i.e., control, AAUP category, base year salary, and geographic location). The present study matched fourteen districts. Those that were not unionized before the 1977-78 academic year were matched with those that were unionized by that period. Although twenty-eight districts were not unionized by 1977-78, suitable matches (unionized districts) were found for only half of them.

The matched pairs were developed according to three criteria: *size* (total faculty), *geographic location* (rural, urban, metropolitan), and *average salary level* in the base year, 1973-74. All the matching criteria were obtained from published reports in the base year (e.g., the *1974 Community and Junior College Directory* [18], the *College Charts 1973-74* [19], and the *Faculty Salary Survey*,

Table 1. Matched Institutions

Nonunionized Districts	Unionized Districts
Antelope Valley	Napa
Barstow	West Hills
Cabrillo	Citrus
Chaffey	Solano
Coachella Valley	Merced
Coast	San Mateo
Compton	Riverside
Hartnell	Redwoods
Monterey Peninsula	Marin
Mira Costa	Sequoias
Pasadena	Sweetwater
San Bernardino	Kern
San Luis Obispo	Victor Valley
Sonoma	San Joaquin

*California Community Colleges, 1973-74* [20]. A list of the matched institutions is given in Table 1.

### T-Test Procedures

The 1973-74 academic year was selected as the base year to assess the influence that unionization might have had on differences in faculty salary gains among the matched districts by the 1977-78 academic year. This provided for salary change comparisons over a five-year period, which included two years before and after collective bargaining legislation in California.

The objective in specifying such a period was to account for any prebargaining as well as postbargaining gains that might be attributed to collective bargaining. Previous research on collective bargaining reveals that anticipatory reactions to collective negotiations may often affect compensation levels long before bargaining actually begins. For example, Birnbaum explained that sizable salary increases may be made prior to unionization to forestall its success [21].

### Multivariate Analysis Procedures

The second phase of this analysis employed a regression technique to account for other influences on faculty salary levels that the matching procedure did not treat. *Unionization, degree of monopsony* (the degree of local competition for college instructors' services), *years unionized, faculty and institutional*

*characteristics, demand, and ability to pay* also were considered. The analysis covered a seven-year period. Specifically, the 1973-74, 1977-78, and 1979-80 academic years were used to gather data on all variables. These years were used mainly because they allowed for analyses of salary differences over shorter and longer periods.

Because of missing data in 1973-74, two separate regressions were run. First, since sufficient data for only eleven of the eighteen independent variables were available in 1973-74, the eleven variables were regressed on faculty salary measures for all three years. Second, additional regression analyses were run again on 1977-78 and 1979-80 salary levels to determine how much more variance could be explained by including independent variables for which there were missing data in 1973-74. At this point all eighteen independent variables were included in the analyses.

The academic year 1973-74 represented the prebargaining period, which was approximately two years prior to the enactment of collective bargaining legislation (1975) for the state's community colleges. The 1977-78 and 1979-80 years were the postbargaining periods, which represented two phases of bargaining development: an initial stage, two years after the collective bargaining enabling legislation, and a more experienced stage, four years after the bargaining law.

#### *Variables Used*

The explanatory variables employed were representative of the larger class of factors that were likely to affect salaries in higher education. In most cases, at least two estimates were used. Using more than one variable for each category supported examinations of various possible ways in which the dependent variable may be affected [22].

#### *Dependent Variable*

The dependent variable was average annual district-level salary. This was considered the most appropriate dependent criterion for several reasons. First, the lack of consistency among college district salary schedules precluded the use of a point on that schedule. Second, because schedules for fringe benefits did not exist, it was impossible to combine a point on the schedule with fringe benefits to arrive at total compensation. Finally, although average salary measures were not determined directly at the bargaining table, they did reflect salaries actually paid by incorporating salaries at all points on the schedule.

#### *Independent Variables*

Eighteen independent variables, representing five categories, were used (see Table 2).

Table 2. Independent Variables of the Analysis

Variable Category	Variable Label	Unit of Measurement	Description
Unionization	UNU	dummy coded	<u>Union-nonunion.</u>
	YRSU	years	<u>Years Unionized.</u>
Monopsony	NS	number	<u>Number of School.</u> Number of schools, colleges and universities (public or private) within a 40-mile radius of each district.
Faculty and institutional characteristics	PD	percent	<u>Percent Degreed.</u> Percent MA/PhDs.
	FE	years	<u>Faculty Experience.</u> Average years.
	SEX	percent	<u>Percent Male Faculty.</u>
	PT	percent	<u>Percent Part-time Faculty.</u>
	AWFCH	hours	<u>Average Weekly Faculty Contact Hours.</u>
	DA	years	<u>District Age.</u>
	TUC	percent	<u>Transfers to UC.</u> Percent district transfers of total system transfers.
	TCSUC	percent	<u>Transfers to CSUC.</u> Percent district transfers of total system transfers.
	GF	percent	<u>General Fund.</u> Percent general funds for instructional purposes spent on vocational programs.
Demand	LOC	geographic	<u>Location.</u> Rural/urban/metropolitan.
	SIZE	student headcount	<u>Size.</u> Number of students.
	PR	percent	<u>Participation Rate.</u> Total district student enrollment divided by estimated district adult population.
	WC	percent	<u>White Collar.</u> Percent of local (county) population engaged in white collar employment.
Ability	AVADA	dollars	<u>Assessed Valuation per Attendance ADA.</u>
	SA	percent	<u>State Aid.</u> Percent total income from state.

## THE MODEL

The explanatory variables were predicted to have an effect on salary levels and were used to develop regression equations. The regression equations were the following form:

$$Z = a + b_1\text{UNU} + b_2\text{YRSU} + b_3\text{SIZE} + b_4\text{PD} + b_5\text{FE} + b_6\text{DA} + b_7\text{SE} \\ + b_8\text{PT} + b_9\text{AWFCH} + b_{10}\text{TUC} + b_{11}\text{TCSUC} + b_{12}\text{GF} + b_{13}\text{LOC} \\ + b_{14}\text{PR} + b_{15}\text{WC} + b_{16}\text{AVADA} + b_{17}\text{NS} + b_{18}\text{SA} + u$$

where  $Z$  denoted a measure of faculty remuneration in any college district and  $u$  was the residual.

## FINDINGS

### T-Test Results: Salary Gains Compared

Comparisons of the paired union and nonunion college districts revealed salary gains (\$229 or 4.5%) favoring unionized institutions (see Table 3). Birnbaum showed similar results among other two-year colleges [21]. When compared at the end of a similar five-year period, his unionized institutions had obtained a 4.2 percent advantage over their nonunion counterparts. Other studies show similar results. In fact, Angell reported that most of these studies showed small union gains, from 1 to 5 percent [23].

This may imply that the presence of unionism encourages salary gains in nonunion districts as a way to reduce union attractiveness. Thus, salary increases at unionized colleges may spill over to other colleges. While such spillovers may appear to be a direct result of union activity, Marshall posited that institutions may raise salary levels to compete more effectively for competent faculty [12]. Others argued that political forces [24] as well as local institutional factors [14] may be more important. For these reasons, additional regression analyses were run to take account of other, potentially significant environmental and institutional factors.

### REGRESSIONS: SALARY MODELS FOR 1973-74, 1977-78, AND 1979-80

When the eleven independent variables were regressed on 1973-74 average faculty salaries, the model shown in Table 4 was developed. A moderate 38.5 percent of the variance in salaries was explained ( $R^2 = .385$ ). A similar proportion is explained in 1977-89, (i.e., 33.3% or  $R^2 = .333$ ); and nearly 60 percent of the variance in salaries is explained by the 1979-80 model ( $R^2 = .594$ ). Only variables contributing to a significant model (i.e.,  $p = .05$  or less) were included.

Table 3. Average Salary Levels in Bargaining and Nonbargaining Districts,  
1973-74 to 1977-78

District Status (1977-78)	<i>N</i>	Mean Salary Change	(Difference) Mean
Unionized districts	14	\$5,336	\$229
Nonunionized districts	14	5,107	



Table 4. Stepwise Regression with Partial Coefficients for Average Faculty Salaries 1973-74, 1977-78, and 1979-80

Year	Step	Variable	Simple Corr.	B	Beta	R <sup>2</sup>
1973-74	1	FE (FacExp)	.53	.462	.399*	.278
	2	PD (%MA/PhD)	.50	.061	.352*	.385
constant = 6.95			SE = 1.35			
1977-78	1	LOC (GeoLoc)	.52	.217	.368*	.273
	2	SIZE (students)	.49	.218	.289*	.333
constant = 20.8			SE = 1.06			
1979-80	1	SIZE	.62	.476	.507*	.38
	2	FE	.50	.311	.364*	.54
	3	PD	.41	.046	.240*	.594
constant = 16.776			SE = .952			

\* $p = .05$  or less

### Results for 1973-74

In the 1973-74 analysis, *faculty experience* alone contributed nearly 30 percent ( $R^2 = .278$ ) of the explained variation in average salaries. In addition, *percentage of MA/PhD* (PD) added nearly 11 percent ( $R_2$  change = .107) to the total explained variation ( $R^2 = .385$  or 38.5 percent). As was expected, the faculty experience variable exhibited a moderately strong correlation with average faculty salaries (i.e., simple corr. = .53), indicating that as faculty experience increases, average salaries increase. Thus, institutions with highly experienced faculty were probably among those districts paying the highest average salaries. Percentage of MA/PhD faculty also displayed a moderately strong, positive correlation with average faculty salaries (i.e., simple corr. = .50). This correlation suggested that districts employing large numbers of faculty with master's degrees and doctorates were those making larger investments in salaries.

Lipsky and Drotning's 1973 study of collective bargaining and teacher salaries also found that the percentage of faculty with advanced degrees was significantly and positively associated with both salary scale variables (i.e., BA plus thirty hours of earned credit) and mean salary levels [8]. Furthermore, Brown explained that community junior college governing boards often base instructor's salaries on

the extent of preparation for teaching and years of experience [16]. This is done because advanced degrees and years of experience were thought to improve the instructor's capacity to teach.

### Results for 1977-78

The analysis for 1977-78 indicated that *geographic location (LOC)* was the most significant predictor of salaries paid, followed by *district size* (see Table 4). The geographic location variable contributed 27.3 percent to the explained variation in salaries paid, while size contributed an additional 6.0 percent. The union variable, *years that a district has been unionized*, contributed only 1 percent to the amount explained, and was not a significant predictor of 1977-78 average salary levels. As was expected, the geographic location factor had a moderately strong, positive association with salary levels, signifying that urban and metropolitan districts pay more than rural districts. *Size* also exhibited a moderately strong, positive relationship with average salaries paid. Thus, as the size of the district increases, salaries also increase.

Hall and Carroll provided some explanations for why size was an important determinant of salary levels [25]. They explained that because large districts were often characterized by bureaucratic inflexibility and reduced opportunities for individual self-expression, they needed to offer higher salaries to attract sufficient numbers of qualified instructors.

No doubt other explanations for this phenomenon are available. For example, larger schools may tend to have the income to provide higher salaries for their faculty. Also, larger schools may be located in highly competitive labor markets, requiring them to set competitive salaries. Regardless, size significantly affected the level of salaries paid, and when combined with geographic location, the two accounted for nearly 34 percent ( $R^2 = .333$ ) of the variation in faculty salaries.

### Results for 1979

In 1979-80, *size* moved from the second most powerful influence on faculty salaries to the most significant. As the most important predictor of 1979-80 salary levels, it alone accounted for 38 percent of the variation in salaries and exhibited a strong, positive association with the dependent variable. This predictor was followed by *faculty experience* and *percent MA/PhD*, to produce a moderately strong explanatory model. Such a model explained nearly 60 percent ( $R^2 = .594$ ) of the variation in the fifty districts' salary levels. Faculty experience added 16 percent to the explained portion, and percentage of MA/PhD faculty added 5.4 percent.

### ADDITIONAL REGRESSION ANALYSES: SALARY MODELS FOR 1977 AND 1979

Since the previous regressions were limited because of missing data in 1973-74, additional regressions were run to determine whether the explained variation would increase when all eighteen independent variables were included in the analysis. Only 1977-78 and 1979-80 were included in this part of the analysis. The 1973-74 academic year was excluded because of the preponderance of missing data. However, by 1977-78, forty-two cases could be developed excluding all missing data cases, and by 1979-80, fifty cases were used. The results of these analyses are shown in Table 5.

#### Results for Salary, 1977-78

The results of the second 1977-78 regression on average salary were identical to the first. *Geographic location* and *size* were consistently significant in predicting salaries whether or not variables such as *union status*, *years unionized*, *percent male faculty*, *percent expenditures on vocational programs*, *average weekly contact hours*, *participation rate*, and *number of schools in the local area* were added to the analysis. Again, *location* explained approximately 26 percent, and *size*, approximately 7 percent of the variance in districts' salary levels. The *percent general fund expenditures for vocational programs* (GF) entered on Step 3 rather than the previous variable, *years unionized* (YRSU). But, it was not significant.

Table 5. Stepwise Regression with Partial Coefficients for Average Faculty Salaries 1977-78 and 1979-80

Year	Step	Variable	Simple Corr.	B	Beta	R <sup>2</sup>
1977-78	1	LOC	.52	.218	.362*	.259
	2	SIZE	.49	.221	.294*	.331
constant = 20.766			SE = 1.1024			
1979-80	1	SIZE	.62	.449	.479*	.383
	2	FE	.51	.284	.333*	.55
	3	SEX	.07	.064	.299*	.605
	4	NS	.47	.00084	.257*	.651
	5	PD	.41	.034	.1795*	.681
constant = 13.3			SE = .87060			

\*p = .05 or less

### Results for Salary, 1979-80

In the second 1979-80 salary regression, approximately 9 percent more of the variance in average salary was accounted for. With seven variables added to the eleven used in the first regression, the model increased from only three variables explaining 59.4 percent to five variables explaining 68.1 percent. The same variables found to be significant in the first analysis were included in the second model, along with the *percent male faculty* (SEX) and the *number of schools in the local area* (NS). These results are displayed in Table 5.

In the first and second regressions on the 1979-80 salary, *size* was the most significant factor (see Tables 4 and 5). In the second regression, however, this variable alone contributed 38.3 percent to the variance explained in salary across the districts ( $R^2 = .383$ ). The *percent MA/PhD* (PD) moved from the third most important variable to the least important of the five. It was replaced by the *percent male faculty* (SEX), which accounted for an additional 5.5 percent of the variation in salary. This indicated that districts with higher percentages of male faculty paid more. More importantly, it revealed that when other influential factors such as district size, faculty experience (FE), labor market competition for instructors (NS), and faculty educational levels (PD) were taken into account, faculty gender (SEX) still had a significant effect on district salary levels. In fact, when the effects of other variables were held constant, the percentage of male faculty accounted for 8.1 percent of the total explained variance in salaries ( $R^2$  change or 5.5 divided by total explained variation or 68.1).

The number of secondary and four-year institutions in the local area (NS) was also important in explaining 1979-80 salary levels. As was expected, this variable was positively associated with salaries, indicating that salary levels reflected the employment options for instructors in the local labor market (i.e., salaries increase with the number of competing schools within a 40-mile radius of a district). The extent of the increase, however, appeared to be small.

## SUMMARY

### Paired Comparisons of Salary Gains

Two hypotheses were set forth. The initial hypothesis was that average salaries in unionized districts would rise significantly higher than those in nonunionized districts during the initial bargaining years. Thus, matched pairs were developed and salary gains compared. Even though the unionized districts achieved gains in excess of those achieved by nonunionized schools, their advantage was not significant.

There may be several reasons for this finding. Serious biases—unknown to the researcher—may have been introduced by the matching process. Moreover, the time specified to capture the onset of bargaining may not effectively account for

prebargaining gains by unionized and even nonunionized institutions. For example, in a reanalysis of his earlier 1974 data, Birnbaum found that yearly changes in compensation levels from 1968 to 1976 showed a curvilinear trend [21]. Small differences favoring unions started during the first two years, peaked and stabilized for the following four years, then declined during the next two years. According to Birnbaum, this curvilinear relationship suggested that time may play a significant role in the bargaining outcome of union impact studies [21]. As such, a similar trend may have been experienced in California's community college system. If so, union gains would have occurred during the first two (prebargaining) years, followed by a peak during 1975-76, stabilization, and then a downward trend during the later postbargaining years (perhaps during 1979-80).

### **Determinants of Faculty Salary**

While tests of whether salary gains in nonunionized districts exceed those in unionized districts were reasonable comparisons, such findings, positive or negative, were not sufficient evidence of a union impact or the lack thereof. Thus, the second hypothesis attempted to measure the effect not only of collective bargaining, but of other factors, on salary. However, the results revealed that unionization was not a significant predictor of average faculty salaries. Rather, other factors that represent demand and institutional traits, to name a few, tended to account for most of the variation in salary before and after unionization.

Numerous variables in the faculty and institutional characteristics category displayed significant relationships with the salary measure. The monopsony variable, for example, was positively related to salaries (1979-80). Therefore, increases in salary are expected to increase with the number of schools within a forty-mile radius of the district.

Faculty experience and percentage of MA/PhDs also were significant predictors of salary in the positive direction. But, the percentage of part-time faculty (PT) and average weekly faculty contact hours did not enter the salary models. The instructional activity measures (i.e., transfers to senior colleges and universities, and general fund expenditures for vocational programs) were positively related to faculty salary levels as well. However, neither entered the models. Thus, unlike that anticipated, they were not significant predictors of faculty remuneration. Geographic location (LOC), size (SIZE), and percentage of male faculty (SEX), on the other hand, were significant predictors of district-level faculty salary.

### **CONCLUSIONS**

Even though in the 1970s, the California Community Colleges constituted the largest postsecondary educational system in the world and experienced a rapid spread of collective bargaining among its seventy college districts, a systemwide study to discern the effect that factors such as unionization and institutional

characteristics had on faculty salary levels over time did not surface. More specifically, there seemed to be little formal attempt to determine what factors could explain the disparities among district salary levels, which had been as high as 60 percent in some years.

This study is particularly important for these reasons. Selected factors incorporated into previous research designs on collective bargaining and faculty salaries were used. However, unlike previous studies, the models presented for this study were tested by more than one analysis. Analyses were run for three academic years, 1973-74, 1977-78, and 1979-80. Also, two methods of analysis were employed. Both a t-test and a multiple regression technique were employed, first to compare the union and nonunion salary gains, and second, to determine whether collective bargaining or other factors were more important in predicting salary levels.

Thus, this study presented a necessary analysis of the historic determinants of faculty salary during the prebargaining and postbargaining years in California Community Colleges. It provides several major findings concerning unionization's effect on salary. Furthermore, it contributes to the literature on salary determination for the community college segment of higher education. In so doing, it reaffirms the importance of faculty and institutional characteristics such as district size, and faculty years of experience, gender, and education in determining salary levels.

It also clarifies the importance that a market factor, the local competition for instructors, has on how well districts compensate their faculty. With respect to unionization, the findings largely support previous studies that argue that unionization has a small effect on salary during the initial stages of bargaining, but does not have a significant, positive effect on salary over time.

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