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ABSTRACT

The question of whether two-year colleges with and without faculty unions differ in terms of selected institutional characteristics was investigated. Attention was directed to expenditures spent on instruction, the percentage of revenue obtained from various sources, the educational costs per full-time equivalent student, the faculty-student ratio, and the average faculty salary. Data for the study were obtained from the 1979-1980 Higher Education General Information Survey. The study population was 319 public two-year colleges, 189 of which had faculty bargaining units and 130 of which did not have faculty bargaining. Findings include the following: both groups of institutions devoted the majority of expenditures to instructional costs; faculty at colleges with unions earned a higher average salary and taught fewer students than faculty in similar institutions without unions -- this resulted in a higher cost of instruction at colleges with unions; institutions with collective bargaining raised a greater percentage of their revenues from tuition and fees and state and local appropriations, while nonunion colleges received higher percentages from grants, gifts, contracts, and endowment income. (SW)

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A Comparison of Funding Priorities in Two Year  
Institutions With and Without Faculty Collective Bargaining

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# Association for the Study of Higher Education

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This paper was presented at the Annual Meeting of the Association for the Study of Higher Education held at the Washington Hilton in Washington, D.C. March 25-26, 1983. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.

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## Introduction

In less than twenty years, approximately one-quarter of the institutions of higher education have chosen faculty bargaining agents to represent their interests when dealing with their employer. Observers, such as Crossland (1976), Lieberman (1979) and Jascourt (1981) have predicted that bargaining will increase in popularity on public campuses in the coming years. In the private sector, the condition may be otherwise. The Yeshiva Decision has resulted in many private institutions delaying further involvement with collective bargaining. Fiske (1982, p. C,1.) sums up the private sector situation with a quote from the AAUP's Jordan Kurland, "for the foreseeable future, collective bargaining is going nowhere in the private sector." The popularity of collective bargaining is greater among community colleges than among senior institutions. Nearly 64 percent of the college campuses with collective bargaining are two year institutions (Academic Collective Bargaining Information Services (ACBIS), 1982). There has been considerable speculation on what this trend means for higher education, and some research has been done on why faculty join unions. In addition, there has been limited research comparing faculty salary gains at institutions with and without collective bargaining. But there has been no systematic research on whether two year colleges with bargaining differ from institutions without bargaining in terms of such vital institutional characteristics as financial viability (measured by several different ratios which will be identified later), size and faculty salaries.

Approximately 470 two year colleges have some form of faculty collective bargaining. The majority of the collective bargaining agreements have been written since 1970. A substantial amount of research has been conducted on the causes for the growth of collective bargaining in two year institutions and the effects of these agreements on faculty salaries (Garbarino, 1975; Ladd and Lipset, 1976; and Baldrige, 1978). Less effort has been made to determine the effects of bargaining on institutional viability and the allocation of resources. These issues are major areas of concern as higher education enters the eighties - a decade that is predicted to be detrimental to the health of higher education because of declining or stabilized enrollments and reduced "real" revenues.

#### Statement of the Problem

As noted, there has been considerable research on the causes of collective bargaining in higher education, while relatively little attention has been given to the economic effects of unions on (1) an institution's allocation of resources to instructional costs; (2) the revenue sources; (3) cost per FTE student; and (4) faculty-student ratio. Some research, with conflicting results, has been done on the economic benefits of collective bargaining to faculty. According to the Government Employee Relations Board (1979-1981), over 85 percent of faculty strikes were the result of economic issues. Chamberlain, 1978; Leslie and Hu, 1977; and Caruthers and Orwig, 1979 speculate that collective bargaining forces the institution to divert funds from educational support programs or to raise tuition and fees to pay the higher costs associated with contract settlements. However, their

studies did not collect substantial data to support their speculation. Little attention was given to determining how the institutions adjusted their revenues and/or expenditures to meet faculty salary demands at both union and non-union institutions. Nor was any attention directed toward studying the long-term effects of such budgetary reallocations on the institution's viability.

Studies in the mid-1970's (Birnbaum, 1974 and 1976; Morgan and Kearney, 1977; Brown and Stone, 1977; and Leslie and Hu, 1977) have compared salary and compensation increases between institutions with and without bargaining and found significant, positive gains by some faculty unions. However, these findings were not uniform for all higher education sectors. Birnbaum (1974, 1976) and Leslie and Hu (1977), found that faculty in two year institutions without collective bargaining fared as well or better than their colleagues at bargaining sister institutions. Marshall, 1979; Guthrie-Morse, 1981; and Horn, 1981 in slightly later studies, found that when local cost of living adjustments are included, faculty at two year institutions without collective bargaining enjoy similar or greater average salaries, by as high as eight percent as those in bargaining institutions. These studies, in general, have only looked at the effect of collective bargaining on average faculty salary.

Collective bargaining forces the administration to make decisions on the percent of the budget to be allocated to faculty salaries at a time when higher education is beset with a growing number of financial problems. These problems result from a leveling off or decrease in "real" dollar appropriations, inflation, enrollment slowdown or decline, increased costs associated with a prolonged policy of deferred

maintenance, and the increased costs of complying with federal and state regulations, planning and evaluation programs. It must be recognized that the cost of such compliance not only includes the direct costs associated with the immediate task but also includes the indirect costs in the form of planning and acquiring the personnel, equipment, time, and materials to perform the tasks.

Minter and Bowen (1982c, p. 8) found that the faculty, along with such items as maintenance and equipment replacement, have been made to bear an increasing burden of the institution's financial adjustments. Faculty, particularly in the public sector, have seen their salaries rise less rapidly than the administrative and general service staff salaries while their workload has increased and their working conditions deteriorated. From his studies of institutional viability, using a series of financial indicators or operating ratios selected from the HEGIS data base, Bowen (1980, pp. 9-10) suggests that reducing the front line expenditures in favor of behind-the-lines support may be an important barometer of the health of higher education. In neither the 1980 study or the 1982 reports, were there any attempt to differentiate between union and non-union colleges.

#### Purpose of the Study

The purpose of this study was to determine if two year colleges with faculty unions differ from two year colleges without unions in terms of selected institutional characteristics, including certain operating ratios, drawn from the HEGIS data base. The study will:

1. compare the percentage of expenditures allocated to instructional costs, including faculty salaries at two year colleges with faculty collective bargaining and those without

faculty bargaining;

2. compare the differences in monies obtained from various revenue sources between two year institutions with and without faculty collective bargaining;
3. determine the educational costs per FTE student at two year institutions with and without faculty collective bargaining;
4. compare the faculty-student ratio at two year institutions with and without faculty collective bargaining;
5. compare the average faculty salaries at two year institutions with and without faculty collective bargaining; and
6. compare average faculty salaries at two year institutions with faculty collective bargaining according to the national union affiliation.

The following variables will be used in this study:

1. faculty salaries / E & G expenditures + MF
2. fringe benefits / E & G expenditures + MF
3. total E & G expenditures + MF / FTE students
4. tuition and fee revenue / total current fund revenue
5. gov't appropriations: state / total current fund revenue
6. gov't appropriations: local / total current fund revenue
7. grants, gifts, contracts, endowment income / total current fund revenue
8. FTE enrollment / number of faculty
9. faculty salaries / number of faculty
10. instructional cost / E & G expenditures + MF
11. size (FTE students)
12. state

#### Methodology

The methodology involved obtaining data on and then comparing public two year colleges to observe the effects of faculty collective bargaining



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The initial population for this study consisted of approximately 496 public, two year institutions listed in the Directory of Colleges and Universities: 1979-80. Of this total population, 458 institutions (92%) had faculty collective bargaining as of August 11, 1981 (AAUP, 1981). The population was then divided by state to determine the percentage of two year colleges with faculty bargaining in each state. Institutions were excluded from this study based on the following conditions: institutions without degree granting authority, institutions without a full time faculty, two year campuses of a university, institutions from states where all of the two year institutions have faculty bargaining units, and institutions who signed their initial collective bargaining agreement after 1976.

These exclusions resulted in a final population of 319 public, two year colleges, 189 of which had faculty bargaining units and 130 which did not have faculty bargaining. The 319 are located in the following fourteen states:

California    Maryland    Oregon

...	Michigan	Institutions
...	District	Washington
...	New York	Albany State
...	Illinois	...

The data for this study were obtained from the U.S. Department of Education, Office of Education Statistics, Bureau of Postsecondary Education, and the Institute for Education Research, University of Michigan, Ann Arbor, Michigan. The data were obtained from the National Postsecondary Education Longitudinal Study (NPELS), a national longitudinal survey of postsecondary education in the United States. The data were collected between 1990 and 1992 and represent the first two years of the study. The data were obtained from the NPELS database, which is a comprehensive data source for postsecondary education in the United States.

The data were analyzed using the following procedures: (1) The data were first analyzed to determine the distribution of institutions in the population. (2) The data were then analyzed to determine the distribution of institutions according to the presence or absence of faculty collective bargaining. (3) The data were then analyzed to determine the distribution of institutions according to the presence or absence of faculty collective bargaining, and (4) the data were then analyzed to determine the distribution of institutions according to the presence or absence of faculty collective bargaining.

The results of the analysis are presented in Table 1. The table shows the percentage of E & G expenditures for both types of institutions for institutions in the population, as (1) the institutions combined and (2) institutions divided according to the presence or absence of faculty collective bargaining.

**Results**

A profile of community colleges with collective bargaining and without collective bargaining was developed following the procedures outlined above. The profile of institutions was developed in five areas: instructional costs, sources of income, faculty/student ratio, expenditures per FTE student, and average faculty salary. Table 1 shows the percentage of E & G expenditures for both types of institutions for

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... do institutions with faculty bargaining. The HEGIS lines that contribute to the residual sources include: government appropriations - federal, sales and services of educational activities, sales and services of auxiliary enterprises, sales and services of hospitals, other sources, and independent operations. The t-tests on all sources of revenue between the two types of institutions revealed significant differences for each revenue source.

Table 3 summarizes the results of comparing means of institutions with and without faculty bargaining with respect to faculty-student ratio, E & G expenditures per FTE student, and average faculty salary.



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... 0.58 for institutions with faculty bargaining and 0.574 for institutions without faculty bargaining, compare very well with the NACUBO (1980) and Bowen (1981) studies that contain data on instructional costs. The NACUBO study of Comparative Financial Statistics for community colleges (Cirino and Dickmeyer, 1981) found the median for instructional expenditures in 1979-80 to be 50.9 percent. Bowen (1981) used a different formula to determine teaching expenditures but found a median of 56 percent in public, two year colleges. The percentage of instructional costs that goes to salaries and benefits is significantly higher in institutions with faculty bargaining. Conversely, institutions without faculty



The data on the other three aspects of this study, faculty-student ratio, expenditures per FTE student, and average faculty salary, show a

clearly demonstrates that institutions without faculty bargaining are much more successful in obtaining funds from non-traditional sources. Whether this is due to the fact that the institutions with faculty bargaining do not have the flexibility to locate funds of these kinds of fund-raising activities, or due to different institutional priorities goes beyond the scope of this study.

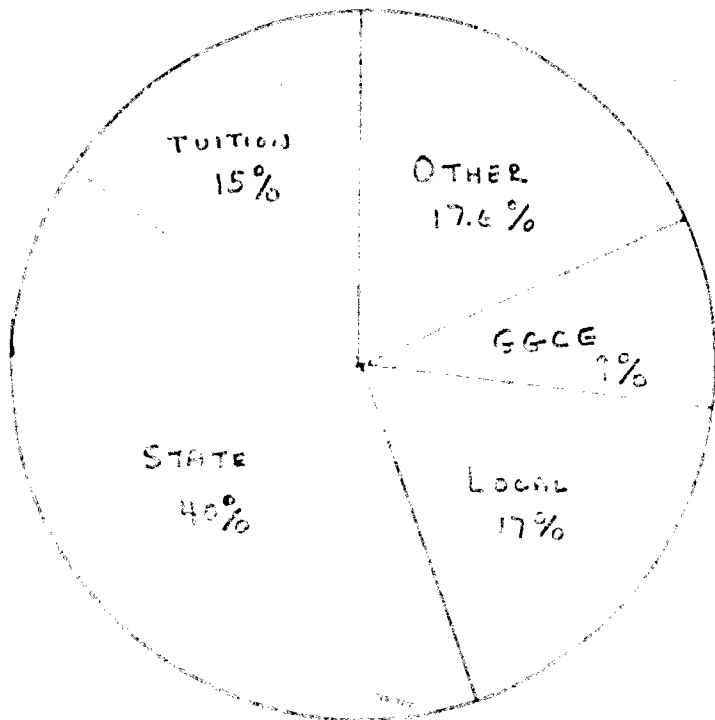
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principles of validity, reliability, and objectivity. It is designed  
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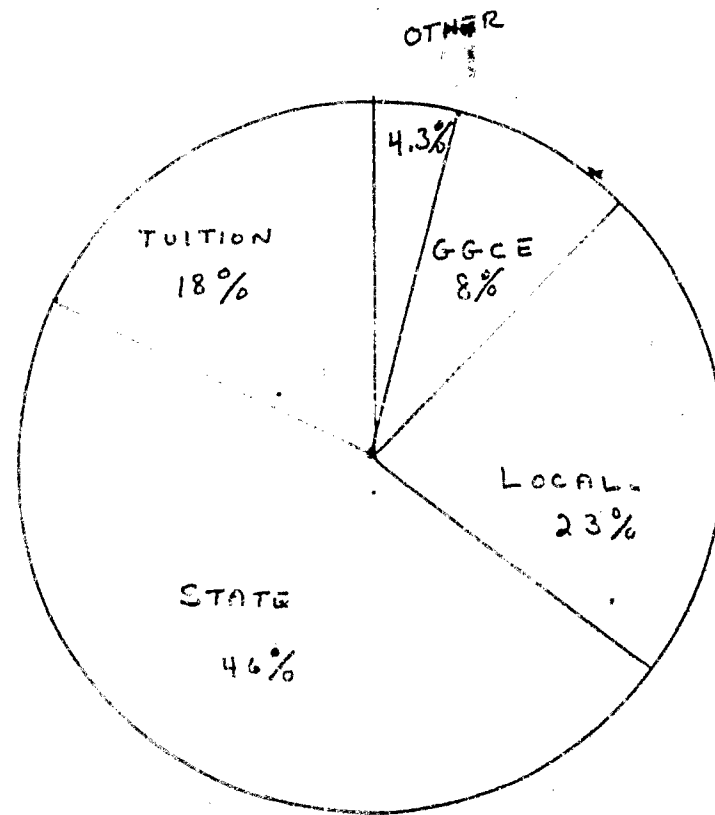
TABLE 1 - COMPARISON OF THE MEAN PERCENTAGE OF E & G EXPENDITURES ALLOCATED TO INSTRUCTIONAL COSTS, FULL TIME FACULTY SALARIES AND BENEFITS BETWEEN INSTITUTIONS WITH AND WITHOUT FACULTY COLLECTIVE BARGAINING

	WITHOUT C.B.	WITH C.B.
INSTRUCTIONAL COSTS E & G EXPEN. (%)	57.4	56.5
FACULTY SALARIES & BENEFITS (%)	11.6	23.0
OTHER E & G EXPEN. (%)	31.0	20.5

7



NON CB



CB

TABLE 2 - PERCENT OF REVENUE FOR TWO YEAR INSTITUTIONS  
WITH AND WITHOUT FACULTY COLLECTIVE BARGAINING  
BY SOURCE OF REVENUE



TABLE 3 - COMPARISON OF VARIOUS INSTITUTIONAL RATIOS  
 BY THE PRESENCE OR ABSENCE OF FACULTY  
 COLLECTIVE BARGAINING

	<b>institutions without CB</b>	<b>institutions with CB</b>
<b>faculty-student ratio</b>	<b>1:56</b>	<b>1:48.7</b>
<b>E+G expend / FTE</b>	<b>\$1814</b>	<b>\$2019</b>
<b>AVG FACULTY SALARY</b>	<b>\$16,645</b>	<b>\$17,175</b>

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