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INTRODUCTION

The economic condition of higher education provided the central focus of the Sixteenth Annual Conference and while there were those in our midst who argued that an analysis of the "dismal science" might prove too pessimistic a theme, the critical nature of the topic mandated further examination. As collective bargaining in higher education becomes increasingly more a public sector phenomena, the question of a public employer's ability to finance higher education, in general, and specifically within the context of a collective bargaining relationship, becomes critical. We therefore invited economists and those responsible for costing and implementing labor agreements to share their experiences with us.

DESIGN OF THE CONFERENCE

The opening session was devoted to a prospective look at the American economy. Oscar Ornati of New York University discussed the concept of change and economic performance from the perspective of a labor economist, while Gene Maeroff of the Carnegie Foundation explored the demographics of higher education and potential for the growth of collective bargaining.

Varying approaches to financing higher education were presented by Kent Halstead of the U.S. DOE and Ed Hines of Illinois State University at Normal. These experts in education finance analyzed state taxing capacity and support for higher education. The political aspects of the financing problem were explored by Carl Carlucci of the New York State Assembly, while the dilemma of revenue bases for capital expenditures was detailed by Nancy Rapoport of Dillon, Read and Company.

The economics of education with respect to labor markets was addressed by Greg Lozier of Penn State and Henry Schechter of the AFL-CIO. Lozier's research concentrated on the elimination of the mandatory retirement age and its impact on the future supply of professors. Schechter looked at the higher education labor market to ascertain what unique trends were evident as compared to the general labor market. Chris Maitland of the NEA presented a study on salary disparities for women faculty. A computerized salary database for faculty, used at the University of New Hampshire, was described by Gary Wulf. This model, applicable to other universities, was accompanied by a series of printouts that, although specific to UNH, can be replicated.

Several Conference sessions were devoted to faculty compensation. Kent Baker from American University analyzed the union wage differential and its impact on the faculty labor market. Jim Tinsman of APSCUF "costed the contract" and explained the techniques used by that union in negotiating wage increases. Sam D'Amico of the University of Maine and Jennings Simpson of the Minnesota Community College Faculty Association presented their experiences with respect to the use of adjunct faculty. In both Maine and Minnesota, the adjuncts are organized and, although the bargaining relationships differ, common ground was found between the two state systems.

Topics that address broadscale conceptual collective bargaining issues presented at the Conference included, "What Do Unions Do?" by Richard Freeman of Harvard University, "Bargaining for Professionalism", by Tim Reilly of the United University Professions and a prospective look ahead at "societal changes" by Michael Usdan of the Institute for Educational Leadership.

A number of years had elapsed since NCSCBHEP held collective bargaining training sessions. Therefore, we decided to conduct a Conference workshop for those who negotiate labor agreements. The workshop was ably led by Arnold
Cantor of CUNY's Professional Staff Congress, Tom Mannix of SUNY, Sam Ranhand of Baruch and Edward Levin and Mark Shaw of New York City. The practical approach of this session made it one of immediate usefulness.

As he has done on many past occasions, Woodley B. Osborne of Hanna, Gaspar, Osborne & Birkel presented the annual legal review of collective bargaining cases in higher education.

This Conference also featured three "technical sessions" devoted to problems in the workplace. These sessions concentrated on a "nuts and bolts" approach to specific employment problems. Paige Cook of AFSCME, DC 37, Mark Senak of the Gay Men's Health Crisis and Alfred Sumberg of the AAUP discussed drug testing, health screening for AIDS and tax reform, respectively.

Moderators play an important role in the success of the NCSCBHEP Conference. In addition to keeping things moving and directing questions, they often introduce the session and act as discussants. Carolyn Brancato of Weil, Gotshal and Manges, Margaret Chandler of Columbia University, Marilyn Magner of CUNY, Central Administration, Geraldine Chapey of Kingsborough Community College, and Sidney Bergquist, Fred Lane, Esther Liebert, Joyce Barrett, Frances Barasch and Ruth Montgomery of Baruch College admirably served in this capacity.

THE PROGRAM

Set forth below is the program of the Sixteenth Annual Conference. Some editorial liberty was taken with respect to format in order to ensure readability and consistency. In those instances where the author was unable to submit a paper, while the name appears on the program, the remarks have been omitted. Opinions expressed are those of the authors and do not necessarily reflect the policy of the organizations in which they work, or of NCSCBHEP.

FRIDAY AFTERNOON, APRIL 29, 1988

12:00 REGISTRATION

1:00 TECH I: DRUG TESTING IN THE WORKPLACE

Film: "Drug Screening on the Job"
Bureau of National Affairs

Speaker: P. Edward Cook, Jr. CSW, Director of Social Services, District Council 37, AFSCME

2:15 TECH II: HEALTH SCREENING IN THE WORKPLACE — THE AIDS DILEMMA

Speaker: Mark Senak, Esq.
Director of Legal Services
Gay Men's Health Crisis

3:15 TECH III: TAX REFORM AND FACULTY INCOME

Speaker: Alfred Sumberg, Associate General Secretary and Director of Government Relations, AAUP
Tech Sessions
Moderator: Esther Liebert, Director of Personnel
Baruch College, CUNY

FRIDAY EVENING, APRIL 29, 1988

8:00 WELCOME
Paul LeClerc, Provost, Baruch College, CUNY
Joel M. Douglas, Director, NCSCBHEP

8:00 OPENING SESSION
THE AMERICAN ECONOMY MOVES TO A NEW DECADE

Speakers:
Oscar Ornati, Professor
Department of Management
New York University

Gene I. Maeroff, Sr. Fellow
Carnegie Foundation for the
Advancement of Teaching

Presiding:
Carolyn Brancato, Econ. Consultant
Weil, Gotshal & Manges, New York City
Former Specialist in Commerce and
Industry, Library of Congress

SATURDAY MORNING, APRIL 30, 1988

9:00 PLENARY SESSION "A"
FINANCING HIGHER EDUCATION: THE STATE'S ABILITY
TO PAY

Speakers:
Kent Halstead, Research Economist
U.S. Dept. of Education, Office of
Education, Research & Improvement

Edward Hines, Director of the Center
for Higher Education and Professor,
Dept. of Ed, Admin., Illinois State
University

Carl Carlucci, Secretary
Ways & Means Committee
New York State Assembly

Nancy Rapoport, Former V.P. & Manager
of Higher Education Financing
The First Boston Corp.

Presiding:
Frederick Lane, Chairman
Public Administration Department
Baruch College, CUNY

10:45 CAMPUS BARGAINING AND THE LAW: THE ANNUAL UPDATE

Speaker:
Woodley B. Osborne, Esq.
Hanna, Gaspar, Osborne & Birkel
Washington, DC
Moderator: Joyce Barrett, Esq.,
Compensatory Programs, Baruch College
Legal Affairs, PSC, CUNY

11:30 BRUNCH

TOPIC: SOCIETAL CHANGE IN THE NEXT DECADE:
IMPLICATIONS FOR HIGHER EDUCATION AND CBHE

Speakers: Michael D. Usdan, President
Institute for Educational Leadership
Adjunct Prof., Fordham University

John Reilly, President
United University Professions/AFT
Local 2190, SUNY

Presiding: Sidney Bergquist, Dean
School of Ed. & Ed. Services
Baruch College, CUNY

SATURDAY AFTERNOON, APRIL 30, 1988

1:00 PLENARY SESSION "B"
ECONOMICS OF EDUCATION/LABOR MARKETS

Speakers: G. Gregory Lozier, Director
Office of Planning & Analysis
Penn State University

Henry B. Schechter, Deputy Director
Economic Research Dept., AFL-CIO

Moderator: Geraldine Chapey, Professor
Behavioral Science, Kingsborough CC
See'y, Professional Staff Congress

3:00 NEGOTIATIONS WORKSHOP: STRATEGIC BARGAINING
ROUNDTABLE

Speakers: Joel M. Douglas

Arnold Cantor, Executive Director
Professional Staff Congress, CUNY/AFT

Thomas Mannix, Associate Vice Chancellor
Employee Relations & Personnel, SUNY

Samuel Ranhand, Professor Emeritus of
Management, Baruch College, CUNY,
Arbitrator

SUNDAY MORNING, MAY 1, 1988

9:00 SMALL GROUP SESSIONS

9:00 GROUP I — COSTING THE CONTRACT: WHAT DOES A
CONTRACT COST IN DOLLARS AND CENTS?
Speakers: Robert Harrington, Associate Vice President of Administration Temple University
James H. Tinsman, President Assoc. of Penn. State College & University Faculties

Moderator: Ruth Montgomery, Asst. Professor Department of Management Baruch College, CUNY

9:00 GROUP II — THE UNIONIZED ADJUNCT

Speakers: Samuel D'Amico, Associate Vice Chancellor for Human Resources University of Maine
Jennings Simpson, President Minnesota Community College Faculty Association, MEA/NEA

Moderator: Frances Barasch, Professor English Dept., Chapter Chair, PSC Baruch College, CUNY

10:00 PLENARY SESSION "C"
ISSUES IN FACULTY COMPENSATION

Speakers: H. Kent Baker, Chairman Dept. of Finance and Real Estate American University
Christine Maitland, Higher Education Specialist, NEA
Gary Wulf, Vice Chancellor for Resource Administration University System of New Hampshire

Moderator: Marilyn Magner, University Dean for Faculty and Staff Relations, CUNY

11:30 BRUNCH

TOPIC: WHAT DO UNIONS DO?

Speaker: Richard B. Freeman, Professor Department of Economics Harvard University

Presiding: Margaret Chandler, Professor Graduate School of Business Columbia University

12:30 SUMMATION AND ADJOURNMENT
Joel M. Douglas
A WORD ABOUT THE NATIONAL CENTER

The National Center is an impartial, nonprofit educational institution serving as a clearinghouse and forum for those engaged in collective bargaining (and the related processes of grievance administration and arbitration) in colleges and universities. Operating on the campus of Baruch College, City University of New York, it addresses its research to scholars and practitioners in the field. Membership consists of institutions and individuals from all regions of the U.S. and Canada. Activities are financed primarily by membership, conference and workshop fees, foundation grants, and income from various services and publications made available to members and the public.

Among the activities are:

• An annual Spring Conference.

• Publication of the Proceedings of the Annual Conference, containing texts of all major papers.

• Issuance of an annual Directory of Faculty Contracts and Bargaining Agents in Institutions of Higher Education.

• An annual bibliography, Collective Bargaining in Higher Education and the Professions.

• The National Center Newsletter, issued five times a year providing in-depth analysis of trends, current developments, major decisions of courts and regulatory bodies, updates of contract negotiations and selection of bargaining agents, reviews and listings of publications in the field.

• Monographs — complete coverage of a major problem or area, sometimes of book length.

• Elias Lieberman Higher Education Contract Library maintained by the National Center, containing more than 350 college and university collective bargaining agreements, important books and relevant research reports.

ACKNOWLEDGMENTS

Designing a conference, administering its operation and publishing its Proceedings is a complex task. The Center is fortunate in having dedicated professionals who ensure the continued success of our conference program. Ruby N. Hill was in charge of inputting this entire volume and it is to her that our thanks is due for the quality level of this production. Beth Johnson is responsible for the coordination and production of this publication, as well as the conference itself. As in the past, Beth assisted me with editing these Proceedings. Jeannine Granger transcribed the tapes of the annual conference. Beth Genya Cohen and Jasmine Tata, not only assisted at the conference, but worked with Mrs. Johnson in the proofreading process. The Proceedings and Conference are a group effort and I gratefully acknowledge the valuable contribution of all those who assisted.

J. M. D.
FINANCING HIGHER EDUCATION: 
THE STATE'S ABILITY TO PAY

A. STATE TAX CAPACITY AND FUNDING 
OF PUBLIC HIGHER EDUCATION

Kent Halstead, Research Economist 
U.S. Dept. of Education, Office of 
Education, Research & Improvement

Because a state's philosophy toward public services is involved, it is 
impossible to fully explain and justify support levels exclusively with quantitative 
measurements. However, such measures are useful in understanding the mechanics 
involved and the role of philosophy in legislative actions. A basic approach to 
the mechanics of state funding of public higher education is identification of the 
key factors and the sequence of decisions. Charts are used here to graphically 
illustrate the relationships and individual state values.

FACTORS INVOLVED IN STATE APPROPRIATED SUPPORT

1. State tax capacity is the potential taxes per capita measured by the 
"representative tax system" developed by the Advisory Commission on 
Intergovernmental Relations. This system applies national average tax rates for 
the various types of taxes to the level of related state economic activity. Both 
state and local government taxes are included.

2. State tax effort is the percent of tax capacity actually collected. Tax 
effort depends on a state's fiscal precedents and philosophy regarding the need 
for tax support of public services.

The product of tax capacity multiplied by effort equals collected tax 
revenues per capita, which represents the actual tax wealth available to support 
public services.

3. The "allocation/enrollment ratio" represents the state budget priority 
given to public higher education relative to the student enrollment load. The 
numerator of the ratio is the percent of state tax revenues allocated to public 
higher education. The denominator is full-time-equivalent (FTE) public enrollment 
per capita. The combination of budget share and student load together with tax 
wealth determines the level of unit appropriations per student, i.e., ratio x tax 
revenues = appropriations per student. The ratio then suggests a state's 
commitment to support public higher education relative to its enrollment load and 
available resources.

4. Tuition revenues augment appropriations to equal total support per 
student. The level of tuition is dependent on a state's philosophy regarding the
### Table 1. State and local government taxes, 1985, and public enrollment rates

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<th>State</th>
<th>1985 tax capacity per capita</th>
<th>Tax effort Index</th>
<th>Tax revenues collected (1)×(2)</th>
<th>Allocation rate</th>
<th>Enrollment FTE students per 1,000 population</th>
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higher education appropriations and tuition, 1986-87.

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| 2.75 100 | $3,871 100 | $1,163 100 | $5,034 100 |
balance of educational returns to the individual versus state citizens, state policy in providing price access, and the degree to which appropriations require supplementation to equal the quality level sought.

STATE PATTERNS AND INTERRELATIONSHIPS OF VARIABLES


The charts are scatter diagrams for the states and the District of Columbia, excluding Alaska because of deviant tax data. Appropriations are from state and local governments for current educational and general operations excluding appropriations for research, medical schools and centers, and agriculture. The appropriations thus primarily relate to student instruction and related academic and institutional supporting activities.

Chart 1 presents state appropriations per FTE student versus tax capacity. Potentially rich states tend to fund public higher education slightly higher than low capacity states, but with so many exceptions, low capacity is not a good excuse for poor funding. History, philosophy, and intent are more important in establishing support than is inherent funding capacity.

Chart 2 shows the state positions for the relationship of tax effort, tax capacity, and the resulting product of collected revenues. Again there is a slight positive correlation, i.e., potentially rich states tend to tax at higher rates than potentially poor states. However, again the great variance suggests that a state's philosophy regarding the need to provide and support public services is paramount.

Chart 3 shows state positions for the ratio of budget allocation rate to student enrollment load versus tax revenues collected. The product of the two variables is appropriations per student. States with low tax revenues tend to give greater priority to higher education by allocating a proportionately larger share of their tax budget relative to their public enrollment. They "catch up" in this way. Thus almost two-thirds of the states, exhibiting a wide range of tax revenues, appropriate between $3,000 to $4,000 per student in support of public higher education. This ratio then is the critical determinant in establishing state level financing of public higher education.

Chart 4 shows state positions for the appropriation — tuition relationship. States with very high appropriations tend to set low student charges. States with low appropriations have a wide range of tuition levels suggesting substantial differences in the philosophy of who benefits and should pay, the intent to provide price access, and the education quality level sought.

Chart 5 illustrates the final level of total support (appropriations plus tuition) per student for public institutions relative to initial state tax capacity. While inherent tax capacity has some affect on final funding, it is not a dominant factor. In particular, note the range of total support from $3,800 to $9,500 per FTE student for states with tax capacity between $1,500 and $1,800 per capita.

Disclaimer: The observations and conclusions offered in this paper are those of the author. They should not be taken as representing the opinions or positions of the U.S. Department of Education, or any of its components.
Chart 1

Appropriations per Student Vs Tax Capacity

Appropriations per FTE student (thousands)

Tax capacity, dollars per capita (thousands)

Appropriations exclude research—medical—agriculture

States and D.C. excluding Alaska
Chart 2

Tax Effort, Capacity, and Collected Revenues

States and D.C. excluding Alaska

Tax capacity, dollars per capita (thousands)
Chart 3

Allocation/Enrollment Ratio Vs Tax Revenues

States and D.C. excluding Alaska
Allocation rate is the percent of tax revenues appropriated for public higher education.
Chart 4

Tuition Vs Appropriations per FTE student

Total support = $6,000/FTE student

States and D.C. excluding Alaska
Appropriations exclude research-medical-agriculture

Appropriations per FTE student (thousands)
Chart 5

Total Support per Student VS Tax Capacity

Appropriations plus tuition per FTE student (thousands)

States and D.C. excluding Alaska
Appropriations exclude research—medical—agriculture
FINANCING HIGHER EDUCATION: 
THE STATE'S ABILITY TO PAY

B. STATE SUPPORT OF HIGHER EDUCATION: 
A 20-YEAR CONTEXTUAL ANALYSIS USING 
TWO-YEAR PERCENTAGE GAINS IN 
STATE TAX APPROPRIATIONS

Edward R. Hines, Director of the 
Center for Higher Education and 
Professor, Dept. of Educational 
Administration 
Illinois State University

INTRODUCTION

State support of higher education continues to be a major policy issue of concern to both higher education leaders and to state lawmakers. We have now entered an era where, as Kerr noted, states are assuming the major role in higher education (Kerr, 1980). This is to be contrasted with the 1960s and some of the 1970s which could be described as a period characterized by federal initiatives in higher education. By nearly any objective measure, the federal government continues to be a significant partner in the support of higher education, especially in the areas of student aid and basic research, but nearly each year since 1980 there have been attempts to diminish the federal role in higher education.

The current "state policy" period has a number of features including the ascendancy of lawmakers, especially governors, as major actors in higher education; the linkages between economic development and higher education, including "high technology," manpower training, technology commercialization, business incubators, and the like; and the more direct involvement of state government in a range of activities in higher education which, if not actually diminishing campus autonomy, is giving the appearance of increasing state government's role in higher education at the expense of the institutional autonomy of colleges and universities (Mortimer, 1987). Another principal feature of the relationship between state government and higher education is a diminished rate of gain in state fiscal support, and it is this topic which is the focus of this paper.

THE GRAPEVINE DATA BASE

This paper relies upon the data base of state tax appropriations for the operating expenses of higher education as reported in the monthly research report, GRAPEVINE, where the author serves as Editor. There are eight to ten issues of GRAPEVINE which are published each year by the Center for Higher
Education at Illinois State University. The GRAPEVINE data are aggregated at the end of the legislative year in the states (summer or early fall) and published in The Chronicle of Higher Education in October or early November. The following February, these data, incorporating supplementary legislative decisions and revisions, are then published in an annual publication entitled Appropriations of State Tax Funds for Operating Expenses of Higher Education by the National Association of State Universities and Land-Grant Colleges.

A. GRAPEVINE Characteristics. GRAPEVINE was begun as a modest monthly newsletter at the University of Michigan by M.M. Chambers in 1958. Chambers saw growing interest in the states and on campuses in identifying levels of state support of higher education. Although the 1960s were to be a period characterized by federal initiatives in higher education, states also were becoming more involved in higher education even in the late 1950s. Two-year percentage gains of 50 percent or greater by states in providing support to higher education were common, statewide coordinating and governing boards were coming into the fore in the early 1960s, state systems were in the process of being formed, two-year community colleges were being created as frequently as one per week as documented by the Carnegie Commission on Higher Education (Medsker and Tillery, 1971), and student enrollment was experiencing what has been termed as "rapid acceleration" (Carnegie Foundation for the Advancement of Teaching, 1975).

Begun as a newsletter sent to state officials or campus representatives, GRAPEVINE rapidly grew to a primary communications link among state budget officials, and the publication began to be recognized as a unique information source. Chambers described the effort as "the GRAPEVINE longitudinal study of state tax support of higher education in the United States." Its principal characteristics are timeliness, comprehensiveness, and accuracy.

B. GRAPEVINE is timely because the data are collected as soon as possible after legislative decisions are made, and these data appear in the next available issue of GRAPEVINE. The data are published sometimes by the end of the same legislative session, but in all cases prior to the beginning of the subsequent legislative session.

C. GRAPEVINE data are comprehensive because they reflect total state effort for higher education, and while comprehensiveness is a strength it also is a limitation. Not all categories of appropriations in a given state are duplicated in other states. Most states have medical schools, but Wyoming does not. Appropriations for vocational and technical education are not treated equally by all states, and the same holds true for agricultural extension services. State idiosyncracies and individual preferences, depending on how the data are used, are a potential source of incomparability. Comparability is only a standard toward which we can move.

Another aspect of comprehensiveness is related to the appropriations breakdown by category and by campus. GRAPEVINE data are reported on a campus by campus basis, and it is this feature in which Chronicle readers are especially interested. These amounts are appropriated by legislatures or distributed by the state higher education agency after receiving a lump-sum appropriation from the legislature. While these campus data are suspect for comparison purposes, over time they help provide a useful longitudinal data set for a campus. As measured by the numerous telephone and written inquiries to the GRAPEVINE office, there continues to be substantial reader interest in campus figures.

D. The next characteristic, the accuracy of GRAPEVINE data, has been the subject of more recent policy decisions by a national advisory committee and
GRAPEVINE editors which have met once annually since 1984 in order to provide technical advice and policy recommendations to improve the accuracy of the GRAPEVINE data and the utility of the publication. Three steps were taken; first, GRAPEVINE communicates with the state correspondents several times yearly regarding data revisions — those decisions made either by a legislature or the governor after the initial appropriations decision. These supplementary decisions can affect the appropriations amount either by enhancement or reduction. In some states, reductions are termed rescissions or reversions. Data revisions are then published in the next available issue of GRAPEVINE, in The Chronicle of Higher Education, and in Appropriations of State Tax Funds published by the National Association of State Universities and Land-Grant Colleges.

States, thus, are given three specific opportunities to have state tax appropriations data published. There is the initial publication of the data in a monthly issue of GRAPEVINE. The data appear (in somewhat aggregated form) in The Chronicle of Higher Education in October or November. Finally, the data appear in the NASULGC publication. Beginning in 1987, the NASULGC publication contains the data from the previous fiscal year as well as the current fiscal year. This enables wide circulation of revised data as well as notification to researchers and analysts about data revisions.

GRAPEVINE editors are completing an updating of a data set beginning in 1976 including all changes and data revisions. Within the year, this data set will be an accurate historical data base for use by those making closer examination of state tax appropriations for higher education.

E. GRAPEVINE has never claimed greater comparability than warranted by the data, although he consumers of the data continue to be interested in this area. Comparability is attained by being able to compare appropriations in similar categories across states. The problem is that state budgeting and fiscal practices lead to comparability problems because not all states collect data in the same way, and some items are included by some states and excluded by others.

There are four sources of interstate higher education finance data, including the Halstead survey, the State of Washington Higher Education Coordinating Board National Comparison Survey, State Higher Education Profiles, and GRAPEVINE. One source, in particular, has attempted to move closer to data comparability, and that is the annual survey by Kent Halstead published as State Profiles: Financing Public Higher Education. Halstead has excluded certain items such as "appropriations for research, agriculture, public health care services, and medical schools" (Halstead, 1987, p. 10), thus focusing on education appropriations in more similar categories across states in order to facilitate comparisons. While GRAPEVINE emphasizes total state effort, the Halstead data focus on comparability. Any serious analysis of state support for higher education should include multiple data sets, thus increasing the degree to which a given analysis can promise both accuracy and comparability.

METHODOLOGY

There are three ways in which GRAPEVINE data can be used productively.

1. GRAPEVINE data provide an indication, early in the fiscal year, of legislative appropriations for the operating support of higher education. In a sense, GRAPEVINE is an "early warning device" for those who, using additional data sources reflecting multiple revenue SOURCES such as local taxes and student tuition, wish to make a more complete analysis of data later in the fiscal or legislative year. Does a precipitous decline in two-year percentage gain for higher education or even "negative" gain imply a decline in total support, or does
a decline in state appropriations tend to be compensated by increases in tuition, local taxes, or non-revenue sources? GRAPEVINE helps provide the answer to this question by identifying early changes in state tax support.

2. GRAPEVINE data are displayed on a campus-by-campus basis, and while only somewhat reliable for comparison purposes, they provide an indication over time of appropriations to a given campus or area of concern.

3. GRAPEVINE data have what William Pickens "longitudinal integrity" (Evangelauf, 1984), and for a given group of similar states or similar institutions, GRAPEVINE data can provide a valuable snapshot of state appropriations over time. There are two ways to capitalize on this feature of the data. Aggregate total amounts on a state-by-state basis can be utilized to examine trends over time, or two-year percentage gains can be examined in order to identify trends in selected states or groupings of states.

Two-year percentage gains were used for this analysis. Two-year percentage gains have been utilized by GRAPEVINE, rather than single-year changes, in order to even out the sudden and idiosyncratic gains or losses in a single year which can occur because of particular state circumstances.

Two-year percentage gains were identified for all 50 states (see attached tables) from the current fiscal year (FY '88) back to the 1967-1968 academic year (FY '68). Data for these 21 years incorporate 20 finite changes in two-years percentage gains. They provide a comprehensive, national view of state support for higher education for two full decades, going back to the years of strong growth in higher education support which was a fundamental characteristic of the 1960s.

ANALYSIS

A. National Patterns. The 1960s and early 1970s were a period of rapid growth in state support of higher education. Earlier in the 1960s, it was common to find two-year percentage gains of 50 percent or greater. This occurred when states were establishing systems of higher education, when enrollment was increasing rapidly, and when many public colleges, especially two-year community colleges, were being initiated. Table 1 demonstrates a national two-year percentage gain of more than 40 percent in the last two years of the 1960s, percentage gains of more than 30 percent in 1970 and 1971, and percentage gains in the 20s for the remainder of the 1970s through 1982. Since 1983, percentage gains have been less than 20 percent with 30-year lows reached in FY '84 and again in 1988.

If one simply calculates the mean of all annual two-year percentage gains for that 20-year period, one obtains a mean of 24.4. In the average two-year percentage gain, there was an increase of nearly 25 percent in state support of higher education during those two decades. In absolute dollars, there were 4.4 billion dollars appropriated nationally to higher education in 1968, and by 1988 that figure had grown to 34 billion — nearly an eightfold increase in 21 years. Clearly, states support considerable sums to colleges and universities and, in fact, states are the largest partner among all who provide support to public higher education, and a substantial partner in the support of private higher education by means of state student aid and categorical grants.

It is necessary to get more specific by examining trends in state support of higher education. A global statistic of a 24.4 percentage increase as an arithmetic average of two-year percentage gains over two decades is minimally meaningful. What is of greater interest is to examine patterns of gain over time, and some of these patterns are shown in Table 2. When the 20 changes in two-year percentage gains are identified from 1968 to 1988, one discovers that
in those 20 changes there were decreases from the previous year twice as often as there were increases. In 30 percent of the cases, there were increases in two-year gains from the previous year. However, there were decreases in two-year gains in 60 percent of the cases.

B. Regional Patterns. Regional patterns are evident from data presented in Table 2. Nine regions were identified using census data with two exceptions. Alaska was treated as a special case because of its unusual economic and fiscal circumstances. The 12 states generally included in a "Southeastern" census region were subdivided into two groups — six states located on the East Coast going from Virginia and West Virginia to the north down to Florida on the south. West Virginia is not a coastal state, but it was included in this grouping. The other six states in the Southeast were labeled "Southeast Central", including Kentucky, Tennessee, Alabama, Mississippi, Louisiana, and Arkansas. The number of states in all regions is reasonably consistent, except for the Southwest Region which includes Arizona, New Mexico, Texas, and Oklahoma. Hawaii was included in the Far West Region.

Looking at increases shown in Table 2, the Far West had the highest percentage above the national figure of a 30 percent increase in two-year gains over the previous year. In 45 percent of the 20 cases, Far West states had increases in two-year gains over the previous year. Next — and still higher than the national average of 30 percent, came the New England and Plains Regions at 40 percent each.

The situation opposite to the "gainers" described above may be found by examining the regional groupings in the "decrease over previous year" category. The regional groupings which had decreases more often than the national average of 60 percent included the Great Lakes and Southeast Central Regions at 65 percent each. In these two regions, there were decreases from the previous year two-year gain 65 percent of the time, compared to the national average of 60 percent.

Next, it is necessary to examine why there were differences among regions in these two categories of gainers and losers. Why were the Far West, New England, and Plains Regions in the category of gainers, and why were the Great Lakes and Southeast Central Regions generally in the loser category?

C. Analysis of Regional Differences. The Far West, New England, and Plains Regions emerged as regions which had a larger number of increases in two-year gains over the previous year than the national average and other six regions. The strong performance of the five states comprising the Far West was related to several factors. California has had a consistently strong economy and support of higher education, excepting from 1983 and 1984 because of the effects of Proposition 13. Since 1984, the two-year percentage gains for California were greater than the regional means in 1985 and 1986 and close to the regional mean in 1987 and 1988, although in the last three years, California's two-year gain has decreased from 30 to 18 to 13 percent. Nevada has demonstrated a consistently strong performance in supporting higher education and encountered a single digit gain only in 1985. Hawaii similarly has demonstrated strong gains for higher education. Underlying economic difficulty is more evident if one examines the somewhat lower gains shown in Oregon and Washington. These lower gains have been affected by regional economic problems in both the wood-related and aerospace industries of the Northwest, resulting in less revenue available for services such as higher education.

The strong performance of New England is of interest, because the New England Region was one which experienced economic difficulties early in this 20-year period. Single digit two-year gains were seen in New Hampshire and
Rhode Island in the early 1970s, and in Connecticut and Maine in the mid-1970s. While Massachusetts demonstrated clearly the second highest performance of all states in the nation with a state mean two-year percentage gain of 33.5 percent, it experienced slower rates of gain from 1976 through 1982. While the seven states comprising the Plains Region showed a greater percentage of increases in two-year gain than the national average (40 versus 30 percent) tying New England in this category, this Region also showed a percentage of decreases in two-year gain tying the national average (60 percent). This indicates that the Plains Region was subject to wider swings in two-year percentage gains for higher education, and Table 8 confirms this wider variation with particular note of more recent fiscal difficulties in Iowa, Kansas, Nebraska, North Dakota, and South Dakota. It has been well documented that the underlying economic problem in the Northern Plains is a struggling farm economy.

The Great Lakes and Southeast Central Regions, on the other hand, have had considerable difficulty in supporting higher education, as compared to the other regions of the nation. Both of these regions experienced decreases in two-year gain over the previous year 65 percent of the time in this 20-year period, compared to the national average of 60 percent. The underlying problems in these two regions include the continued economic weakness of the industrialized upper Midwest, especially in Michigan, Ohio, Indiana, and Illinois. Table 5 demonstrates that these four states had substantial difficulties with single digit two-year increases for higher education in Illinois (five in the period examined), Indiana (two single digit years), and Michigan (three single digit years). Wisconsin has less of an industrial base than the other four states, and its difficulties, especially during the 1980s, are demonstrated in Table 5.

An interesting pattern emerges from examining the Southeast Central Region, as shown in Table 7. The Region demonstrated consistently strong two-year percentage gains for higher education — in the 30s and 20s — until 1982 and subsequently when the two-year gains fell to four years of gains in the "teens", followed by a 50 percent two year gain in 1986. The last two years have been marked by single-digit gains of eight and one percent for the entire region. In fact, Table 7 shows negative gains in two of the six states in 1987 and negative gains in four of the six in 1988 (Alabama, Arkansas, Louisiana, and Mississippi). Kentucky and Tennessee remain as the bright spot in the region with much stronger recent two-year percentage gains.

D. Focus on the 1980s. In this analysis, because of greater interest in states' performance in supporting higher education in more recent years, attention will be given to trends in state support encompassing the four most recent years, since FY '85. Figure 1 displays the two national maps illustrating two-year percentage gains from FY '85 to '87, and from FY '86 to '88 (Hines, 1987, 1988). These two maps demonstrate what has been characteristic of the 1980s in state support of higher education. In FY '88, there was a decline in state support of higher education in a majority of states. This decline is shown more specifically in Table 12 where, from FY '87 to '88, there were 28 states experiencing decreasing two-year gains while only 17 states showed increasing two-year gains. Five states had identical rates of two-year gain from FY '87 to '88. The strongest gains occurred in the Northeast with especially strong gains in New England. Texas was the only state among the six states in the Southcentral area located in the bottom quartile of states with an increase in two-year gain. A cluster of Northern Plains states experienced declines or small two-year gains (Montana, North Dakota, and Wyoming). In FY '87, five states had negative two-year gains, and this number grew to eight states in FY '88. Of the five states showing negative gains in FY '87, Texas made a positive gain in FY '88, Mississippi and Montana were less negative in FY '88, and Alaska and Louisiana were more negative in FY '88. In FY '88, Alabama, Arkansas, North Dakota, and Oklahoma joined the negative gain category. On the other hand, five of the six
New England states showed greater gains in FY '88 with Massachusetts about even with the gain in FY '87. Maine and New Hampshire were the national leaders in FY '88 with two-year gains of 39 and 33 percent respectively.

As shown by the two maps in Figure 1, the national pattern in FY '88 was similar to the pattern shown one year ago. There was some decline in a majority of the states in two-year percentage gains with a fairly sharp regional pattern in FY '88 exemplified by continued resurgence in state support of higher education in New England, the mid-South, Florida, and Nevada along with continued difficulties in the Southcentral and Northern Plains Regions. This pattern demonstrates what Hodgkinson termed a "mid-continental trough" with reference to demographic trends (1985). Rather than focusing on demographics, however, GRAPEVINE data focus on state fiscal support for higher education, and here we have what could be described as a mid-continental economic trough. There is no reason to believe that this pattern is a temporary one. On the contrary, with state economies in this region dominated by activities such as oil production in the Southcentral and agriculture in the Northern Plains Regions, there would be reason to believe that this downward economic trend might well continue.

The larger pattern of trends illustrated by GRAPEVINE data is noteworthy. The New England and Mideastern Regions experienced economic difficulties in the early to mid-1970s. This negative trend was related to the decay of the traditional "smokestack" industries along with labor issues which stimulated a number of factories and industries either to close or to relocate to the "sunbelt" of the Southeast, Southcentral, and Southwestern Regions. Although the New England Region experienced an economic slowdown during the 1970s, only a few of the states in that Region fell to the bottom grouping of states in two-year gains. In the industrialized Midwest and Plains Region, however, selected states fell to either single digit or negative two-year gains on a number of occasions.

By the early 1980s, there were signs of revitalization in New England and in some of the Mideast-Midwestern states with willingness to increase revenue for public services by levying higher taxes. This occurrence made a dramatic difference in state support of higher education in Michigan and in Ohio. The Southeastern states, in the early 1980s, experienced some slowdown in support for higher education except for continued strength shown in Florida, North Carolina, Virginia, and Tennessee.

The general pattern now emerging nationally is one of a bimodal distribution with states falling into one of two categories. On both coasts, there appears to be a pattern of stronger state support of higher education. There are continued problems with state support for higher education especially in the Southcentral and Northern Plains Regions, but also a decline in support in a majority of the other non-coastal states.

E. Reasons for Observed Trends. The principal difference between strong and weak state support of higher education is availability of revenue. Unlike the federal government, states do not engage in deficit financing; rather, they constantly struggle with the balance between available revenues and necessary expenditures. Education, especially if elementary and secondary education is included, comprises the largest item in states' budgets. At a time when enrollment growth has ebbed or ended, and as demand for other services has grown larger in areas such as corrections, mental health, and welfare, states are increasingly strapped for enough revenue. If education no longer has the strength of the argument of enrollment growth as a rationale for increasing state education funding, then it is not illogical that education is now encountering much more difficult times obtaining revenue.
This revenue trend is demonstrated explicitly by the data contained in Table 13. Available revenue is measured by what the projected growth rate will be in the amount of general fund revenues available and anticipated state appropriations. Using GRAPEVINE data, the 50 states were divided into quartiles. The top quartile states, as measured by two-year percentage gains for higher education, are shown on the left, and the bottom quartile states are shown on the right of Table 13. The top quartile states, very clearly, had much greater projected increases in the general fund and anticipated appropriations than did the bottom quartile states. In FY '88, the general fund increase in the top quartile states was 7.2 percent, and in the bottom quartile states it was 5.1 percent. However, the appropriations increases in the top quartile states was 7.7 percent, but in the bottom quartile states there was only a 0.8 percent increase in appropriations.

Table 13 also enables some comparison between FY '88 and FY '87 with regard to these comparative figures. In FY '87, the top quartile states had less of an increase in the general fund (5.6 v. 7.2 percent), but provided a relatively greater amount to higher education (23.0 v. 23.0 percent two-year gain), perhaps illustrating that states made a conscious choice in FY '87 to provide support for higher education in the face of competing demands from other service areas. In FY '88, although states had somewhat more available general fund revenues, they chose to appropriate it to services other than higher education.

States have the opportunity to make conscious choices in supporting services by making appropriations from available revenue. The so-called "victim" perspective described by Halverson where higher education is acted upon and victimized by insidious policymakers is rejected summarily (Halverson, 1975). There is no evidence of higher education being victimized by state lawmakers. What does appear to be operating, however, is higher education presenting an opportunity for advancing economic development, providing manpower training and retraining, and offering the locus and personpower for facilities such as supercomputers, supercolliders, business incubators, and other "high-tech" installations. If state leaders, principally governors and legislative leaders, view higher education as offering advancement in economic and human resource development, this will be reflected in increases in state appropriations for higher education. If higher education is not viewed in this manner, or if state leaders make conscious choices to emphasize other areas of service, such as corrections or mental health, then state appropriations for higher education will remain "flat".

Another fundamental trend is evident from GRAPEVINE data, and that deals with increases in state appropriations for campus operating budgets versus targeted increases for categorical purposes such as economic development and manpower training. The days of automatic increases for higher education may be behind us. What is increasingly evident is that increases for specific purposes are often related to larger state objectives. There are two fundamental views of this new occurrence in higher education. One can hypothesize that higher education has become less insulated and more integrated with state purposes external to the academy, or one can hypothesize that political leaders have now intruded into campus life and, through the campus operating budget, are fully controlling the goals and purposes of higher education. Whether this new level of involvement between higher education and the external world will result in strengthened support and a sense of renewed vision for higher education, or greater political intrusion and less institutional autonomy largely will depend on the quality of the interaction and the relationship among the critical actors (Newman, 1987). "New money" for higher education, in other words, increasingly will be tied to specific objectives. These objectives can be defined with or without the involvement of higher education leaders. If defined without higher education's involvement and input, then the hypothesis of higher education being
acted upon by external officials may be largely accurate. If higher education
demonstrates the interest as well as the capacity for continued involvement, then
the state and higher education may be able to work out a relationship where
state and higher education purposes, while not identical, will be congruent, and
where partnership activities will be able to benefit both higher education and
state government.

There are an increasing number of instances where these partnerships
between state government and higher education seem to be working. Funding for
higher education in New Jersey moved away from a strict formula to a base plus
priority funding for specified purposes (Wallace, 1987). Two types of incentive
funding are utilized in New Jersey, and these include challenge grants where
campuses direct activities toward objectives which have been defined mutually by
the state and higher education leadership, and competitive grants where a model
similar to the federal Fund for Improvement of Postsecondary Education is
utilized. Another example are the Ben Franklin Partnerships in Pennsylvania or
the Thomas Edison program in Ohio where higher educational institutions are
actively involved in promoting activities designed to stimulate economic
development (Jaschik, 1987).

Another factor related to the current pattern of state support for higher
education is the place of the education reform movement in the states. In July,
1987, legislative fiscal officers were asked by the National Conference of State
Legislatures to identify the top three fiscal issues in their respective states. The
leading issues were taxation, education, and general budget policy in that order
of priority. In 22 states, education was the top priority issue, but for most of
these states, elementary-secondary education was the concern, not higher
education. Higher education was identified as the top priority fiscal issue only in
Arizona and Idaho. The greater concern about taxation and a possible ebbing of
the education reform movement is seen in the following quote from NCSL:

The main reason why taxation was the top fiscal issue was federal tax reform which had a direct
impact on most states' revenue. The federal example also inspired many states to reform their own income
taxes to varying degrees. A second reason why taxation was a leading issue was the need for
revenue in some states plagued by poor economies and anemic revenues. The decline in education's rank
as the leading fiscal issue is consistent with the decline in growth of education spending. The margin
by which the growth rate of aggregate education spending exceeded the growth rate of general fund
spending was less than it has been in the past several years. This could indicate that the momentum for
education reform has subsided, in part because states have already made substantial increases in support of
education (Gold et al, 1987).

Still another visible issue is student aid. While increases in campus
operating budgets have shown less rapid gains recently, there have been
somewhat greater gains in appropriations for student aid in many states. In FY
'88, 33 states reported separate appropriation items for state student aid (usually
to a state scholarship commission). Sixty-one percent of these states (20 of 33)
appropriated at least as much or more money for student aid in FY '88 than they
did in FY '87. The student aid category provides another example of spending for
categorical purposes. It also is a category which is not lost to the legislators in
terms of the political benefit to increasing the support directly to students.
CONCLUDING OBSERVATIONS

Based upon this contextual analysis of two-year percentage gains in the 50 states in supporting higher education, some concluding observations can be made. It is again emphasized that these data are limited to state tax appropriations as only one revenue source, admittedly the principal source of revenue, in the states. Additional analysis is needed including other revenue sources such as provided by Kent Halstead, the State of Washington Survey, and the Department of Education State Higher Education Profiles.

1. The overall trend in state support for higher education, as measured by 21 years of two-year percentage gain figures, is downward from gains of 40 percent or more in the 1960s to the 30 percent range in the early 1970s to the 20 percent range in the late 1970s to the teens in the 1980s. In absolute dollars, states have provided more to higher education each year, but in percentage gains there has been a consistent and significant lessening in support.

2. There is an overall "ebb and flow" in the pattern of support for higher education in virtually all of the states. One finds from these data that states have high and low points in supporting higher education. More consistent rates of gain and economic resurgence largely explain the relatively stronger showing of the Far West, New England, and Southeast Atlantic Regions in the 1980s. Economies oriented disproportionately to industries such as wood in the Northwest, oil in the Southcentral Region, and agriculture in the Northern Plains Region explain much of the difficulties encountered recently by those states.

3. The level at which state governments are providing appropriations to higher education is a function of the amount of general fund revenue available and the willingness of the state to allocate some of the revenue to higher education as part of the larger appropriations process. Underlying taxation issues and the basic health of a state's economy are, therefore, major factors in the amount of revenue which becomes available for services including education and higher education.

4. Increasingly, states are experiencing a "flat" record of performance in providing increases to campus operating budgets; rather, "new money" tends to be targeted to specific purposes either defined by states or in which states serve as a major partner along with higher education.

5. Current trends indicate that future funding of higher education increasingly will involve state governments as active partners in providing funds for the achievement of specific purposes. The nature of the involvement of higher education in this enterprise largely will depend on the response of higher education to these new funding realities.

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GRAND MEAN
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State Mean 23.8 24.2 20.5 25.0 24.9 24.0

GRAND MEAN
### TABLE 10

PERCENTAGES OF TWO-YEAR GAIN FOR SOUTHWEST REGION, 1968-1988

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State Mean: 28.9, 24.2, 23.4, 29.1, 26.9

GRAND MEAN
**TABLE 11**

PERCENTAGES OF TWO-YEAR GAIN FOR FAR WEST AND ALASKA, 1968-1988

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State Mean 25.1 29.3 21.0 19.8 26.0 24.3 37.0

$^a$The Alaska data are included here but treated as a somewhat special case.

Alaska data are not included in the means for the region but are included in the national mean (Tables 1 & 2).
### TABLE 12

#### SEVENTEEN STATES WITH INCREASING 2-YEAR GAINS, FY87 to FY88

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#### TWENTY-EIGHT STATES WITH DECREASING 2-YEAR GAINS, FY87 to FY88

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Mean in FY88: 7.2 7.7 23.0
Mean in FY87: 5.6 26.1


** Two-year gains (in percent) of state tax appropriations for the operating expenses of higher education, as reported in GRAPEVINE. Identification of top and bottom quartile states also based on data reported in GRAPEVINE.

*** Not reported.
FIGURE 1

PERCENTAGES OF TWO-YEAR GAINS IN APPROPRIATIONS OF STATE TAX FUNDS FOR ANNUAL OPERATING EXPENSES OF HIGHER EDUCATION IN THE FIFTY STATES, FISCAL 1987 OVER FISCAL 1985

PERCENTAGES OF TWO-YEAR GAINS IN APPROPRIATIONS OF STATE TAX FUNDS FOR ANNUAL OPERATING EXPENSES OF HIGHER EDUCATION IN THE FIFTY STATES, FISCAL 1987 OVER FISCAL 1985
INTRODUCTION

Recent data (1987) show that New York State ranks sixth in the nation in per capita appropriations for higher education. This same data also show that New York State ranks 32nd in appropriations for higher education per $1,000 of personal income. Does this mean that New York State can and should be spending more in support of higher education? In 1987, the New York State Legislature appropriated over ten percent of the State's budget for the support of higher education. While the state's support for public schools was greater, it is in support of locally operated mandated programs. Higher education is by far the State's single largest expenditure for discretionary programming.

A closer examination of the State's funding of higher education shows that it is too diverse to be accurately judged using simple comparisons. The larger issues of complete public funding for higher education and campus autonomy are not the focus of higher education interest groups at the state level. The questions asked of state officials deal with the benefits of higher education to individuals and interest groups, and the survival of institutions and communities. The level of funding for higher education set by the Legislature and the Governor is not based on simple technical or economic arguments, but political and social judgments about the role of higher education in the State.

THE STATES AND HIGHER EDUCATION

Historically, state governments have been responsible for the chartering, creation, accreditation and funding of institutions of higher education. Early legislatures granted both funding and the right to incorporate to private institutions. In return, these institutions fulfilled a public responsibility by providing the type of educational services the society needed. Although municipal institutions had existed for some time, public institutions at the state level did not appear until 1785, with the founding of the University of Georgia. Attempts by a number of states in the early nineteenth century to take over the management of private universities were denied in court cases culminating in the 1918 Dartmouth College case.
The American tradition of academic freedom and academic separation from political concerns and controls runs deep in both private and public institutions. The academic community characterizes the mission of higher education as education, research and public service. Just how this mission is carried out, the emphasis on each of these goals and the evaluation of the success of institutions and the academy as a whole, are questions that institutions and faculty believe are outside the realm of governors and legislatures.

Elected officials usually differ with this view. State level policy issues have included the role of statewide boards, governors, and legislatures in the governance and regulation of institutions of higher education. While these issues have in many ways changed over time, basic questions of the purpose of institutions and their control still dominate the discussion.

In the 1980's, questions of the social purpose of institutions of higher education, who pays for the operation of institutions and who controls programs and priorities still dominate the discussion of higher education, but in different forms than they took in past decades. The postwar decade saw a focus on the development of the university as a response to the space race and the need to prepare a generation of young men for employment in the new American economy. The Truman Commission rejected the elitist recommendations of the AAU's Millett Commission that only 25% of high school graduates were capable of college work and recommended that opportunities in higher education be expanded to accommodate 50% of the nation's high school graduates (Mayhew, 1973:5).

In the 1960's, the states concentrated on expanding their capacity to meet the growing demand, the growing role of federal funding and finally, the realization that the growth of institutions and a heavily tenured professoriate were proceeding without much in the way of statewide planning and coordination. In the 1970's, the states found that higher education had become a big business. Estimates placed the size of the higher education sector from $55 to $85 billion accounting for 3% to 5% GNP. These estimates agreed that institutions of higher education employed over one million workers, including approximately 650,000 faculty, which was more than double the number in 1960 (Stauffer, 1979).

The issues in the 1970's became very clearly both social and economic. Who would control institutions of higher education, and access to those institutions became major issues in the provision of state funding to institutions. Private institutions argued for a larger share of state dollars, claiming they could provide the same services at similar costs as public institutions and that students should not be prohibited from choosing a private institution solely on economic grounds. Most instituted recruiting programs to conform to government "equal opportunity" standards and thus qualify for both institutional and student aid.

The 1980's have seen an emphasis on institutional management and accountability that makes higher education a competitor for state dollars. Social and economic issues have been translated into questions of employability and regional economic development. In the 1970's, researchers attempted to link the economic benefits to the individual to the level of funding provided by the state (Bowen, 1974; Breneman and Finn, 1978), while in the 1980's much of the focus is now on the economic benefits to the state of a skilled labor force and university research and public service.

THE NEW YORK STATE MODEL

The New York State budget is based on a financial plan submitted as part of the Governor's Executive Budget. Receipts are allocated to four main funds and expenditures are grouped into four main "budget bills". The General Fund
contains the receipts from personal and business taxes and user fees, as well as real estate and miscellaneous taxes. The special Revenue Fund contains federal grants and receipts dedicated for specific uses.

The Capital Projects and the Debt Service Funds receive transfers from the General Fund and Special Revenue Fund. Expenditures are made for state operations, grants to local governments, debt service and capital projects.

In 1987, from the State's $26.5 billion general fund, approximately $2.3 billion was appropriated for the direct operating expenses of public institutions of higher education. In addition to this sum, the Legislature also appropriated $.5 billion for direct aid to students in both public and private institutions, and $.165 billion directly to private institutions.

The Legislature also appropriated approximately $.9 billion for capital construction and debt service for public institutions of higher education. From other sources, mainly tuition and fee revenue and federal funds, another $1 billion was made available for higher education in New York State.

The budgets of non-educational agencies also contribute to the support of higher education in New York State. From the State's Urban Development Corporation and Science and Technology Foundation, approximately $100 million in grants and loans was made available, mainly to private universities for specialized research centers and construction projects.

New York State spends more on higher education than it does on health, mental health or social services, and in terms of state funds for operations, eliminating federal funds, user fees, and shared support of mandated local government services, the State spends more on higher education than on all three combined. We know that interstate comparisons produce technical problems that raise questions about the validity of such comparisons. In the case of New York State, comparisons typically miss the large amounts of financial support the State provided to institutions of higher education as grants to private institutions and through non-traditional methods of funding higher education.

More importantly, the current analysis misses the state level products of higher education from research and public service and the importance of these in increasing funding for higher education at the state level.

FOOTNOTES


2. Thomas Stauffer, American Council on Education (1979) used a 1978-79 number of $55 billion and 3% of GNP. Howard Bowen, Carnegie Council put the figure at $46 billion for operations and capital and $35 billion including foregone income, or 5% of GNP.

3. New York State Finance Law, Section 22.
REFERENCES


FINANCING HIGHER EDUCATION:  
THE STATE'S ABILITY TO PAY  
D. CAPITAL EXPENDITURES IN HIGHER EDUCATION: THE FUNDING DILEMMA

Nancy Rapoport  
Vice President  
Dillon, Read & Co., Inc.

I. CONSTRUCTION AND RENOVATION AS PRIORITIES

After more than a decade of neglect in order to produce balanced budgets, the deferred maintenance needs of American universities swelled to enormous proportions. Harvey Kaiser, who used the term "Crumbling Academe" to describe the severity of the problem, estimates that some 20 percent of campus facilities need repair or replacement.¹

Deferred maintenance is only one reason behind the recent increase in demand for capital. Other forces include the technological imperative, competition among schools, and the growth in public education. The technological revolution permeates the campus. In addition to new telecommunication and computing systems for all categories of schools, large universities are sorely lacking in state-of-the-art research facilities. Following a 15-year decline in federal support for such facilities and a decade of retrenchment in university capital spending, university facilities are far behind those of private industry.

Additionally, competition among schools for students and changing needs within the student population have increased the demand for facilities. Within the elite schools of the private sector, and among well-established public universities, facilities for support services and amenities are critical to maintaining a competitive edge and attracting the best students. Among smaller state schools, the demand is for basic academic facilities while housing for both student and faculty remains an unmet need everywhere.

In short, as a result of years of neglect, changes in technology, changing demographics, and the desire of the states to provide educational opportunities for residents, many colleges and universities have sizeable needs for capital expenditures. Such needs exceed currently available resources in both the public and private sectors. In addition, demands for increased student aid and funding for critical operating requirements have put pressure on more traditional funding sources, including state appropriations and private giving. Accordingly, both sectors are embarking upon ambitious fund raising campaigns and bonding programs.
According to a recent survey by The Chronicle of Higher Education, at least 38 institutions have announced capital campaigns to raise amounts ranging from $100 million to $1.1 billion, the latter for Stanford University. Of these, nearly one-third are public universities. The bonding programs are even more ambitious than the fund drives. Below is a selected list of public programs.

1. The New Jersey Department of Higher Education has identified $1.1 billion in new construction needs for its 30 public institutions and $161.7 million in renewal and replacement needs for its 11 senior colleges and universities. At least $850 million in bond financing is contemplated.

2. The State University of New York has requested $1 billion in bonding capacity to finance both new construction and renewal and replacement.

3. The City University of New York has requested $1 billion in bonding capacity for its ten-year capital program of renewal and replacement. This request follows receipt of $1.3 billion of bonding capacity in 1986.

4. The five-year capital plan of The University of Arizona contemplates $360 million of expenditures, nearly two-thirds of which would be financed with revenue bonds.

5. The Massachusetts Board of Regents is requesting $1 billion for its seven-year plan.

6. The California public colleges sold $400 million in bonds last year, are seeking $600 million this year, and anticipate additional capital needs of $7 billion by the year 2000.

7. The Georgia Board of Regents has requested $126 million in bonding authority.

Although these are among the largest programs, many others, including those in Texas, Indiana, and Virginia, have already issued or intend to issue several hundred million dollars in tax-exempt bonds. The private schools are also active. The following group is representative of bonding programs in 1988: $90 million for Yale, $160 million for Georgetown, $47.5 million for Northwestern, $30 million for Wesleyan, $50 million for the University of Hartford.

II. GROWTH IN TAX-EXEMPT BOND FINANCING

The sheer magnitude of the capital financing needs, given equally large operating requirements, is the primary factor accounting for the growth in bond financing, however, the economic advantages of long-term financing and the relatively easy access to the capital markets are also important. Several factors must be considered when assessing this growth.

1. To the extent donors are willing to give funds not designated for construction, bond financing allows the university to build endowment. Despite a corresponding amount of debt financing, increasing a university's endowment provides a cushion to meet both ongoing and unanticipated needs. Furthermore, total endowment returns have exceeded borrowing costs for most of the 1980s, making borrowing more cost effective than spending endowment.

2. Bond financing allocates the cost of facilities among generations of
users by spreading the payback of the principal over the useful life of the facilities financed. Thus, to finance facilities at public institutions, today's taxpayers are not required to use current tax dollars, while today's students are not denied facilities because of shortfalls in current revenues.

3. Because of the extended payback and the low cost of funds, certain projects may become fiscally viable when financed with tax-exempt bonds. In the absence of such a funding source, many projects would not be built because the projects fail to meet the test of self-sufficiency. Hence, the availability of low cost, long-term funds creates its own demand for continued usage.

Universities today have easier access to both tax-exempt and taxable bond markets. As Exhibit 2 shows, institutions of higher education increased their public borrowing dramatically during the 1980s. In part, this is the result of legislative developments. Whereas a decade ago, many states lacked enabling legislation to permit public or private institutions to utilize tax-exempt bonds, today most states provide for tax-exempt bond financing. The increase in volume in 1985, and to a lesser extent in 1986, was the result of financings which were rushed to market before the effective date of the Tax Reform Act of 1986. Restrictions in the Act constrain the use of tax-exempt bond proceeds for all categories of users and limit the volume of tax-exempt bonds issued and outstanding for private universities to $150 million. Nevertheless, the Act is not expected to impact significantly on the total volume of debt issued by these institutions since they still have access to the taxable market to meet financing needs.

For the first quarter of 1988, institutions of higher education borrowed $1.3 billion in 54 tax-exempt issues. These data are consistent with our projections of $4 to $5 billion of financing in 1988 and annual growth of approximately five percent. Within the next year, however, there may be an increase of greater than five percent because the funds raised from the anticipatory financings of 1985 and 1986 will be expended and because a number of previously announced capital programs have not yet been financed.

The growth of municipal bond insurers which guarantee the timely payment of principal and interest on tax-exempt bonds has also increased access and the volume of issues. Institutions which are investment-grade credits can purchase municipal bond insurance. Because insured issues are rated in the top category by the credit rating agencies, weaker institutions or those not known to the general public can generally finance at a lesser cost using bond insurance than if they financed on the basis of their own credit. The capacity of the existing insurance community is limited, however. There are just five established insurers, only one of which appears to be pursuing the education market with any vigor. To meet the need for additional capacity in this area, Congress authorized the creation of a new insurance company to focus solely on education and education-related health care issues. The new company called Connie Lee is to be capitalized by approximately $20 million from Congress, $40 million from Sallie Mae and $60 million from private investors, and is anticipated to start operations by the end of 1988. Because virtually all of its reserves will be dedicated to insuring educational issues, either as direct insurer or as reinsurer, Connie Lee will expand available capacity considerably. In addition, because of the requirements of its federal charter, Connie Lee will insure certain lesser-rated credits that would not be acceptable to its competitors.

Several other factors have also contributed to the expansion in the use of tax-exempt bonds. These include:
1. a growing market for lesser-rated and non-rated credits among certain bond funds which seek higher-yielding investments

2. a deepening understanding of educational credits by all categories of institutional investors (for example, insurance companies and municipal bond funds)

3. the improving credit quality of much of the higher education industry.

The sources of improvement include stronger management, reduced organizational waste, substantial reductions in deferred maintenance and unmet new construction needs, improving enrollments achieved through targeting and specialized programming, and the increasing use of strategic planning processes to establish priorities and allocate resources.

The final factor contributing to easier access to the capital markets is the high quality of the institutions which have financed and the name-recognition many possess. Six educational institutions (California Institute of Technology, Harvard, Stanford, Yale, Princeton, and Rockefeller) have a triple-A rating from both Moody's Investors Service and Standard & Poor's Corporation, the two major rating agencies. Another 40 to 50 institutions are in the double-A category. Since only about 350 educational institutions are rated, this means that approximately one-seventh are in the top two categories, a distinction shared by few, if any, industry groups. The majority of the remaining institutions which have financed fall in the A category, which is also considered a strong investment-grade rating. In other words, for the most part, only the strongest institutions have sold bonds publicly.

III. CRITERIA FOR DEBT RATINGS

Four primary factors determine an institution's credit worthiness and the rating for a bond issue: the security pledged to the issue, student demand, university finances, and management. The general approach of both rating agencies to security pledges is summarized by Standard & Poor's as follows:

Three of the most common security types are a pledge of revenues from a specific enterprise activity, such as a dormitory, a pledge of tuition or student fees, and a general obligation of the school. S&P views debt secured by enterprise funds generally to be the weakest pledge. For example, a dormitory's revenue source is limited to room rentals, while the other two types imply much broader revenue-raising capabilities. A bond secured by tuition or a school's general obligation pledge is likely to experience problems only if the entire school experiences difficulty. An individual dormitory, however, could close without necessarily affecting university operations. If the revenues pledged are from a large dormitory system, and the school is comprised primarily of students who live on-campus, dormitory revenues can become as important to the college's overall health as tuition and student fees. Generally, however, the ratings of dormitory or other enterprise-secured debt are ranked below debt of the same school secured by tuition and fees. The dormitory's essentially to the school will determine how far the dormitory rating will be below the school's general obligation rating.
Student demand is another rating factor. Demand is critical to a college rating because demand determines whether a school will survive and ultimately the state of its finances. As shown in Exhibit 3, demand is evaluated by looking at enrollment size, and trends in applications, acceptances and matriculations. Selectivity (as evidenced by low acceptance rates) and desirability (as evidenced by high matriculation rates) indicate that a school has more flexibility in maintaining enrollments despite unfavorable future developments. Additional factors evaluated in determining flexibility are geographic diversity/location, student quality, faculty, program offerings and competition.

The school's financial performance is also critical to establishing its rating. The key financial indicators are size of endowment, endowment per student, unrestricted monies as a percentage of budget and debt burden. Unrestricted monies consist primarily of the unrestricted current fund balance, quasi-endowment, and unrestricted plant fund balances. The higher the ratio of unrestricted monies to the annual budget, the greater the financial cushion of the institution. The debt burden is the ratio of maximum annual debt service to the sum of unrestricted current fund expenditures and mandatory transfers. Expenditures are evaluated by component to determine if any flexibility exists to reduce costs. Tuition and fees, as well as all revenue sources, are examined to determine the extent of tuition dependency. Too high a reliance on tuition has a negative implication.

For a state-supported university, on the other hand, the rating depends upon the particular state's credit strength and the historical support given the institution. The most important fact of publicly-supported higher education is that the universities are not self-supporting. Up to 65 percent of annual operating revenues have to be made up from appropriations of state subsidies. Absent subsidies, these institutions would post annual deficits in the tens of millions. The ongoing viability of the public universities is dependent on these subsidies and not on the collection of tuition and fees. Hence, the fundamental soundness of a public university revenue bond arises not from its revenue base, but from the long-term commitment of the state to the borrowing institution and the state's ability to fund that commitment.

Bonds of state-supported institutions of higher education are therefore viewed not as revenue bonds but as quasi-state bonds, and the ratings of bonds issued by these institutions are generally one or two notches below that of the state. Whereas a credit analysis of private universities emphasizes enrollment trends, endowment balances, and relative tuition levels, the credit strength of a public university is based primarily on the willingness and ability of the state to support the institution fully. This does not mean that the bonds are state obligations, but rather that the state's condition and commitment are the main determinants of the credit of the school.

IV. IMPLICATIONS FOR OPERATING BUDGETS

As indicated earlier, the use of long-term, low-cost financing has several advantages for resource allocation. It alleviates the pressure on operating budgets by eliminating the need for an immediate depletion of available resources. Current resources can be used to support the operating budget and endowment can be maintained to support both operations and debt service. In addition, matching the maturity of the debt to the life of the facilities being financed may produce a closer relationship between the price of services offered and the cost of providing these services. Stated differently, the cost of servicing the debt can be viewed as a usage charge for the facilities. Finally, if the debt service is low enough, then certain projects which were not otherwise feasible become self-supporting. By eliminating the need for subsidies to support these projects, pressure on the operating budget is reduced.
Despite its advantages, debt financing is not without risks. Because of the greater availability of capital funds, projects may get built which do not have the highest priority. Unless such projects are entirely self-supporting, they constitute a drain on the operating budget for operations and maintenance, as well as for debt service. Moreover, financing agreements contain covenants which govern the flow of funds (that is, the priority for use of institutional resources) and which may restrict institutional flexibility in lean times.

Finally, and most importantly, universities may incur too much debt and find it hard to service it if enrollment drops markedly. The challenge facing institutions of higher education is how to meet their needs for capital expenditures and still maintain acceptable debt burdens. While massive capital expenditures are required to eliminate deferred maintenance and to provide for the level of academic facilities and support services demanded today, these expenditures create future annual requirements in the operating budgets for debt service and operations and maintenance. If enrollments drop, will institutions of higher education be able to meet both their long-term and their short-term financial obligations?

REFERENCES


EXHIBIT 1
CAPITAL CAMPAIGNS TO RAISE $100 MILLION OR MORE

Stanford University
University of Southern California
Columbia University
Johns Hopkins University
University of Miami
Ohio State University
New York University
University of California, LA
NY Hospital-Cornell Med.Ctr.
University of Minnesota
University of Notre Dame
Washington University (Mo.)
Columbia-Presbyterian Med. Ctr.
Tufts University
University of Pittsburgh
Indiana University
Boston University
Brandeis University
Carnegie Mellon University

Duke U.C. of Arts & Sciences
Pennsylvania State University
Yeshiva University
Harvard U. Medical School
Baylor University
University of Michigan
University of Iowa
University of Utah
Georgia Institute of Technology
Pomona College
Brown University
Smith College
DePauw University
Mount Holyoke College
University of Oklahoma
Pace University
Pepperdine University
Rutgers University

Exhibit 2
Higher Education Long-Term Tax-Exempt Bond Volume
1980 - 1st Quarter 1988

$ Billions

* As of March 31, 1988.

Source: Securities Data Corp./Bond Buyer.
Exhibit 3
Private Not-for-Profit Higher Education
Industry Standards
Medians by Rating Category

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<thead>
<tr>
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<th>AAA</th>
<th>AA</th>
<th>A</th>
<th>BBB</th>
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<td>Enrollment</td>
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<td>Stable to Increasing</td>
<td>Stable to Declining</td>
<td>Stable to Declining</td>
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<td>Rate of Admittance</td>
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<td>25-50%</td>
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<td>Nationally Renowned</td>
<td>Good Quality</td>
<td>Fair Quality</td>
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<tr>
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<td>Internationally Renowned</td>
<td>Nationally Renowned</td>
<td>Domiant Locally</td>
<td>Local Appeal</td>
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<td>Financial Operations</td>
<td>Continuing Surpluses</td>
<td>Continuing Surpluses</td>
<td>No Deficits</td>
<td>Rebounding From Deficit</td>
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<tr>
<td>Endowment/ FTE Student</td>
<td>$100,000 or Greater</td>
<td>$50,000- $100,000</td>
<td>$15,000- $50,000</td>
<td>$5,000- $15,000</td>
</tr>
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</table>
THE NEXT DECADE

A. COLLECTIVE BARGAINING FACES THE '90s

Gene I. Maeroff, Sr. Fellow
Carnegie Foundation for the Advancement of Teaching

We are now approaching the end of a decade that began with the Supreme Court verdict in the Yeshiva case. That was, and still is a dominant consideration in collective bargaining in higher education. In other words, it appears that because of the dampening influence of the case, at least on one very fundamental level, this decade has shown very little has changed in the world of higher education collective bargaining. But is that really true? At the Carnegie Foundation for the Advancement of Teaching, we did a study which examined various statistical sources. We were, of course, particularly reliant on the statistics from the National Center at Baruch. Collective bargaining in higher education did make headway during the 1980s, but significantly it was essentially limited to the public sector.

The fact that there was growth is often overlooked by those who only concentrate on the reality of the Yeshiva decision. The time from 1975, which is the beginning of the period of our examination, to 1987 showed a growth of 102.4% in the number of agreements in force. The growth has essentially been slower since 1980, and since Yeshiva. The rate was about 12 to 14% a year in terms of the number of new agreements through the years of the late 1970's leading up to the Supreme Court decision. It then slowed to a little bit less than 7% between 1980 and 1982. The only drop, however, was between 1982 and 1983. It then started growing again. At one period between 1984 and 1985, there was barely enough expansion in the public sector to offset the losses in the private sector but it did hold its place.

Our analysis of the number of institutions represented by collective bargaining, not just the number of agreements, was somewhat complicated by the fact that generally there isn't a firm definition that is used throughout the field as to how many institutions are covered by a single agreement. We had to make some definitions of our own. Using this kind of subjective way of looking at it, we determined that from 1977 to 1987 there was an increase from 503 to 704 in the number of institutions of higher education with collective bargaining and even more in terms of the number of contracts in force.

If you want to count the number of individuals who are covered by collective bargaining in higher education, you are restricted to starting from 1984 when the National Center began providing the data in that way. Essentially, it just is not available in summation form before that. In 1984, some
182,964 faculty working in higher education were covered. There was consistent growth to 1987 when 208,147 were covered. At the beginning of 1988, probably something like 30% of all of the teaching people working in higher education were covered by collective bargaining.

Perhaps what is most dramatic is the public/private split so far as collective bargaining in higher education is concerned. The more we looked at the numbers during the 1980's since the Yeshiva decision, the more it came up. If one wants to talk about what distinguishes public from private higher education at the end of the 1980s, it is the greater potential for expansion of collective bargaining in the public sector than in the private sector.

Looking back at the figures from the late 1970's one is struck by what might have been. In the late 1970's, the growth rate of collective bargaining was much greater in the private sector than it was in the public sector. Then it got cut off. From 1975 to 1976, for example, there was a 26.7% rise in agreements at private institutions and absolutely no rise whatsoever in public institutions. By 1980, just as the Yeshiva decision was about to come out, 20.8% of all of the agreements were in the private sector, pretty much reflecting the distribution of students between public and private higher education.

Another way of looking at what has happened during this time of collective bargaining in higher education is to focus on community colleges which have been the backbone of collective bargaining in higher education. From 1975 to 1987 community colleges accounted for anywhere from 65 to 70% of all of the agreements in force. In 1984, the first available statistics as to how many people were covered by these contracts, revealed that 69,510 were at community colleges while 113,454 were at four-year colleges.

From 1986 to 1987, there was evidence of a real slowdown in collective bargaining expansion at community colleges. To us, it reflected the likelihood that there has been saturation in this area. Those interested in seeing further growth in collective bargaining will have to look toward the four-year institution.

One cannot look at what has happened in collective bargaining in higher education during the period 1975 to 1987 without thinking about the role of the various organizers and of the unions. In addition to the battle to unionize, there has been another kind of conflict; a fight between the bargaining representatives themselves. At this point, the NEA has the most agreements while the AFT represents the most people. From 1975 to 1987, the number of NEA agreements grew by 129.9%, AFT by 135.8% and AAUP by 79.2%.

If you look over the whole twelve years, it has been a rather healthy growth period for all three bargaining agents. However, if you only look at the portion of the growth that has taken place since 1980, times have gotten especially hard for the AAUP. This indicates to us the possibility that the AAUP might have been able to hold its own better than it did if there had been more opportunity to organize during the 1980's in the private sector.

Currently, there is not a particularly rosy outlook in the private sector for higher education collective bargaining. Turning to the public sector, we see resistance to organizing on the part of many prestigious colleges and universities. That is a general statement and is not meant to imply that there are no elite, selective institutions that have collective bargaining. However, there is still notable resistance on the real prestige campus. As you may know, the Carnegie Foundation does a classification of institutions of higher education. It is based on a whole host of criteria but it is a matter of looking at a lot of things that generally add up to what we view as prestige. In the
category of Research One—Universities, the really powerful universities, the American Association of University members are the ones that carry a lot of clout. Out of seventy universities in this country categorized as Research One, only fifteen of them have collective bargaining. Out of 142 institutions categorized as Liberal Arts One, these are the most selective liberal arts colleges in the country and are overwhelmingly private, only three of the 142 have collective bargaining. The highest percentage of collective bargaining is at the public two-year community colleges and at the Comprehensive One public universities, many of which grew out of the old teacher colleges.

What is important though, despite Yeshiva, collective bargaining has not disappeared from American higher education during the 1980s, but has, in fact, grown. What might be a key to further growth is the adoption of enabling legislation allowing public employee collective bargaining in the 20 or so states that do not have it. If things change in terms of legislation in those states, fertile ground would be opened.

I suggest that there probably are some other factors which collective bargaining in higher education is going to have to consider as it becomes more mature. I think it is going to have to do more to demonstrate that what is happening in collective bargaining in higher education is not purely in the self interest of the people who work on the campuses but also beneficial to the students. Both faculty and students are effected by the enormous growth in the number of part-timers. It does not seem that collective bargaining has really come to terms with what exactly the role of part-time faculty is to be on the campuses and just how important they are to the professoriate. There seems to be a great deal more that has to be worked out in that area.

Collective bargaining may also, if it wants to show more maturity, do more to come to terms with the shifts in student majors. We now have a situation in the United States in which one out of four undergraduates in this country majors in business. Yet, many institutions are caught in situations in which they do not really have the right kind of balances to reflect the demands of students. Obviously, they just cannot be fickle. It is not like a grocery store or supermarket that orders more oranges this week if there is greater demand and more apples next week if there is a greater demand for that. It is far more subtle, far more subtle than that. However, there has to be more done to show that universities and colleges with collective bargaining are not going to be the new version of the railroads that kept the firemen sitting in the locomotives just feathering their beds when there was no longer anything to do.

A third area for consideration within the mature collective bargaining context is that there are 95% tenured departments with low student interest while there are other departments with insufficient lines. Another area is that of providing more leadership and dealing with an intelligent approach to remediation on the college campus. There has to be more done to make sure it is done properly while not demoralizing the faculty members involved.

A final area in which collective bargaining might be able to show some leadership as it asserts itself going into the 1990s is in dealing with curricular problems in higher education. Is collective bargaining going to have more to say about the coherence of the undergraduate curriculum so that it moves away from the smorgasbord approach which continues to exist in most places, even where they do have so-called general education requirements?

This is what collective bargaining looks like as it faces the 1990s. These are some of the challenges. I think that with the right kind of leadership, and there certainly has been some evidence of this leadership in the 1980s, that collective bargaining can meet these challenges and continue to move ahead.
THE NEXT DECADE
B. SOCIETAL CHANGE IN THE NEXT DECADE:
IMPLICATIONS FOR HIGHER EDUCATION

Michael D. Usdan, President
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Adjunct Prof., Fordham University

INTRODUCTION

One of the most time-honored principles of American education is that schools and colleges exist to meet the needs and serve the interests of their students. It follows from this proposition that student interests and needs must be represented in the development and implementation of educational policies and practices. Many of these policies and practices, however, are still predicated on the no longer valid assumption that the great majority of students who will be entering higher education will be white, middle-class and English speaking. In fact, more than 30% of our public school population already is of minority origin, and the proportions of Blacks, Hispanics, Asian-Americans and native-Americans continues to grow. The implications of these demographic changes for higher education are profound and will dramatically influence the future of everyone associated with the post-secondary enterprise.

In this brief presentation, I will focus on the demographic revolution which is reshaping both the nature of the student body and our society at large. Growing numbers of the prospective college age population will be of minority origin, non-English speaking, economically disadvantaged and fall under the label of "at risk" students who need special supportive services. In addition, basic changes in family structure have compounded the problems of children and the schools which serve them as fewer students come from economically secure, two-parent households. I will emphasize the point that higher education policymakers must look beyond just numbers in ascertaining the special needs of an increasingly heterogeneous at-risk student body which our post-secondary institutions will be compelled to serve in the years ahead.

THE "DEMOGRAPHIC REVOLUTION"

Futurist Kenneth Boulding describes demography as the "celestial mechanics of the social sciences". Astute leaders in higher education by being cognizant of demographic trends and realities can help themselves to anticipate and meet the challenges of the future rather than being overwhelmed by very predictable changes in the composition and needs of their student bodies. In other words, higher education leaders need not be reactive and by understanding and acting on
demographic imperatives can help to more realistically plan for the future of their institutions. A good place to start, of course, is with current enrollment patterns in public schools, the obvious source of the next generation of college students.

Harold Hodgkinson and other demographic analysts have pointed out that minority birth rates have stayed about the same while that of Caucasians has declined since the post-war baby boom. As a result, the minority proportion of the school age population is increasing and will reach more than 30 percent for the nation as a whole by 1990. Immigration of Spanish-speaking young people also has had substantial effect on the school age population in many states. These two factors have resulted in increasing minority enrollments in the public schools of many states. For example, in 1980, minority students constituted 52 percent of the public school enrollment in Mississippi, 43 percent in Louisiana and California, 46 percent in Texas, 33 percent in Florida and Maryland, and 32 percent in New York. The 1990 census will reflect continuing increases in these trends with the proportion of minority students inexorably increasing throughout the country, particularly in large influential states like California, Florida, Illinois, Ohio, Pennsylvania, Texas and New York.

Hodgkinson summarizes the education consequences of demographic changes as follows:

1. More children entering school from poverty households.
4. A smaller percentage of children who have had Head Start and similar programs, even though more are eligible.
5. A larger number of children who were premature babies, leading to more learning difficulties in school.
6. More children whose parents were not married, now 12 of every 100 births.
7. More "latch-key" children and children from "blended" families as a result of remarriage of one original parent.
9. Few while, middle-class, suburban children, with day care (once the province of the poor) becoming a middle-class norm as well, as more women enter the work force.
10. A continuing decline in the level of retention to high school graduation in virtually all states, except for minorities.
11. A continued drop in the number of minority high school graduates who apply for college.
12. A continued drop in the number of high school graduates, concentrated most heavily in the Northeast.
13. A continuing increase in the number of Black middle class students in the entire system.
14. Increased numbers of Asian-American students, but with more from Indonesia, and with increasing language difficulties.

15. Continuing high drop-outs among Hispanics, currently about 40% of whom complete high school.

16. A decline in the number of college graduates who pursue graduate studies in the arts and sciences.

17. A major increase in part-time college students, and a decline of about one million in full-time students. (Of our 12 million students, only about two million are full-time, in residence, and 18-22 years of age).

18. A major increase in college students who need BOTH financial and academic assistance. A great liaison between the offices of student financial aid and counseling will be essential.

19. A continuing increase in the number of college graduates who will get a job which requires no college degree. (Currently 20% of all college graduates).

20. Continued increases in graduate enrollments in business, increased undergraduate enrollments in arts and sciences COURSES but not majors.

21. Increasing numbers of talented minority youth choosing the military as their educational route, both due to cost and direct access to "high technology".

22. Major increases in adult and continuing education outside of college and university settings — by business, by government, by other non-profits such as United Way, and by for-profit "franchise" groups such as Bell and Howell Schools and The Learning Annex.

23. Increased percentage of workers with a college degree. (From one in seven to one in four today.)

These demographic changes obviously have important implications which transcend the educational system in a world in which approximately 75% of the total population is of color. Indeed, a persuasive case can be made that the future of our democracy and economic system may be predicated upon our ability to accommodate to the special needs of an increasingly diverse and heterogenous population. Our colleges and universities will be among the first of our major societal institutions confronting this unprecedented demographic pluralism because of the increasing minority birthrate and immigration patterns mentioned earlier.

POLITICAL, SOCIAL AND ECONOMIC IMPLICATIONS

Leaders in higher education must accept the reality that these demographic trends will be of paramount importance to their institutions in the years ahead and thus, I want to elaborate briefly upon their profound political, social and economic implications.

For example, the Hispanic population is the fastest growing segment of the minority population with approximately two-thirds of the nation's Hispanics being located in only three states (California, Texas, and New York). More than 85% of the Hispanic population live in only nine states (New Jersey, Florida, Colorado, Illinois, New Mexico, and Arizona in addition to the aforementioned three states).
This dramatic skewing of the distribution of the Hispanic population creates a serious problem of demographic illiteracy as most of the country remains ignorant of the full import of the dramatic growth in the number of Hispanics. Indeed, Hispanics are the youngest population group so additional increases in the Hispanic populations are quite predictable.

California, our largest state, early in the 21st century will be "majority-minority". Of our largest school systems already 23 of 25 are "majority-minority", and unless we improve the quality of the education and life chances of these massive cohorts of minority youngsters, not only will the pool of prospective college students be substantially reduced but, even more importantly, the social fabric of our society may well be imperiled.

The demographic phenomenon of "gray power" also will be of increasing significance as the population ages and the number of citizens 65 years of age and older rapidly expands. By 1990, the numbers of youngsters under 20 will fall below 30% of the nation's population for the first time in history. In fact, in 1983, there were more people 65 years of age or older than teenagers. The implications of these changes are brought forth starkly by an analysis of the ratio of working to retired people. In 1950, 17 citizens worked for every retired person, in 1985 the ratio was 5.3 to 1 and a 3 to 1 ratio is projected for 1992 with one of the three workers being a minority.

Thus, growing numbers of retired individuals will be dependent upon a younger population, increasingly minority in composition, to sustain the economy in general and to maintain the viability of an already rather vulnerable social security system.

It is estimated that 95% of the 1990 work force and 85% of the 2000 work force already are employed in the marketplace. Thus, traditional educational institutions serving the young will be dealing with only a small proportion of the work force, a full one-half of this younger population will be minority youth who will constitute, as noted earlier, a much higher percentage of the next decade's diminished youth cohort. It is projected that by 2000, approximately one-third of the young will be socially and/or economically disadvantaged.

THE IMPACT ON HIGHER EDUCATION

These rather startling statistics reflect compellingly why traditional educational institutions will have to broaden their base of political support with even smaller numbers of the population having traditional school and college age youngsters enrolled. Educational leaders can no longer assume the public support they could generate, for example, when relatively large segments of the population had youngsters in schools and colleges in the rapid growth era after World War II. Colleges, as well as schools, will have to reach out to cultivate new and broader constituencies if they are to acquire the necessary support as older citizens and other groups make increased demands for services in a period of declining resources. Educational institutions will have to be viewed as a civic responsibility by the majority of the population which will not have youngsters involved or a direct stake in the educational process. Educators can no longer assume that they have a broadly gauged support base and certainly cannot afford the luxury of pulling the wagons around in a circle and shooting inwardly as has often been the case in the intramural or internecine warfare which has occurred with some frequency over collective bargaining, church-state relationships, funding allocations, desegregation, interlevel responsibilities, and other issues.

Any discussion of the demographic context in which colleges and other institutions will function with dramatic increases in minority enrollment must focus explicit attention upon the shocking reality that almost one-half of black
teenagers have no jobs and that minority youth unemployment remains higher than 20 percent, persisting at more than twice the unemployment rate for the country at large. These numbers starkly project the danger of our urban schools becoming in one college president's words, "warehouses for the angry or staging areas for anarchy".

In addition to the traditional morally compelling arguments for equality or the equalization of educational opportunity, there are now selfish, vested-interest reasons for wanting to improve, in particular, big city schools whose student population will be 90 percent minority by 1990. As the demographic data reflect, our population is aging, and shrinking cohorts of young people must be productive to generate the revenues necessary to support services in a changing economy. More of these youngsters obviously will be of minority origin, and they represent valuable human resources that our nation and economy cannot afford to fritter away. Indeed, there will be a 20 percent reduction in the entering work force in the 16 to 24 year old bracket through 1990. These numbers indicate that we need to develop the capabilities of all of our youth to their fullest potential. We must substantially improve our 35 to 45 percent high school dropout rate, and as one cynical realist says (hopefully, with tongue in cheek), "let us forget justice and think profits and economic survival".

Higher education, of course, has already been significantly influenced by these demographic developments. As this audience well knows, more of the students on our campuses are now part-time, female and older than their predecessors. My hope is that these remarks have helped to demonstrate the interdependence of the different levels of education and why educators in higher education must pay much more attention to the elementary and secondary schools upon which they are so dependent.

FOOTNOTE

A Preliminary Note about Prediction and Speculation

Prediction is a recognizable aim of good scientific work. We can be reasonably certain, for example, that diagnosis of disease will result from symptomatic investigation, and that prescription of suitable therapy might be only a matter of time. Science is replete with wonder and presents its adherents with a share of chance, but in scientific enterprise learning to ask the right questions promises to give us a usable map. When we turn, however, to envisioning the future of social compacts, labor contracts among them, our confidence in the power of prediction ought to be qualified.

Discerning the future of collective bargaining in higher education proceeds with about the same degree of certainty as a utopian novel. Utopian fiction takes account of social reality, seeks its implications, but rather than following the controlling protocol of laboratory experiment, the utopia speculatively applies to circumstantial fact the will and values of an author and the author’s reference group. In other words, instead of taking a utopian work as a record of perceptions, we learn to read it as the projection of a vision. So, should you receive my remarks today.

Demographic Change

The circumstantial fact governing contemporary prognostication is population change. Nostradamus, writing today, would minimize other matters to found his prophecies on demographics. Here are the traces of some of the demographic changes.

Two-thirds of the world’s immigrants are choosing the United States as their new home. At the same time, native populations of Afro-Americans, Latinos, and Asian-Americans — all of them groups historically underrepresented in the institutional life of the country — are dramatically expanding. The research reports of Project 2000, produced by the Rockefeller Institute of Government, tell us that in the brief span of five years, 1975-80, half a million immigrants arrived in New York. Unlike earlier population movements in America, classically led by young men, the majority of immigrants in the late twentieth century are women. Concentrated in the ages of 20 to 44, and even assuming average
fertility figures, new immigration has a multiplier effect. It should not be surprising, then, to read in Project 2000 documents that in 1980 one in eight New Yorkers under ten lived in a household headed by a recent immigrant.

The conventional designation "minority" hardly seems suitable when it seems likely that in just over a decade more than one-third of New York's population will be Hispanic, Afro-American, and Asian-American, while California, regions of Florida, and some Southwestern states may well report greater changes. Race, ethnicity, or gender are not the only features of demography to note. Socio-economic class may be even more significant. In 1980, one in three Afro-American children of New York lived below the poverty line, one in two Hispanic children did. Given that condition, it is not surprising that authors of the Project 2000 population study should say that these children could be "the first generation since the inception of universal education not to surpass the educational attainment of its elders", (141).

That rueful speculation goes far to explain the interest shown by leaders of business, industry, and politics in public education. Unlike Nostradamus, who specialized in foresight of disasters, these new advocates of improved education see promise in the great demographic changes of the past and next decade. An international population has driven American productivity before, it can again.

The challenge to the public schools, K through 12, cannot fail to set an agenda also for colleges and universities. Access will be the issue, enlightened self-interest a motivation for new program design. If colleges are to operate at capacity, the new populations must be prepared and recruited.

**Bottom Lines and Professionalism**

The only recent experience comparable to this new challenge has been the pressure to enroll and serve the "non-traditional" student and the "returning student". The comparison will give us pause, because, more often than not, service to students other than the 17- to 19-year old recent graduate of a high school academic track has been construed in economic terms. University managers, conditioned to bottom-line thinking, reflexively address pools of new clients by expanding their cadre of part-time employees. In that respect, universities are managed like the Bureau of Taxation where large numbers of temporary employees are taken on board for the first quarter of the calendar year when the returns start rolling in. In New York, a seasonal style of hiring to meet new student enrollment has been encouraged since 1981 by revised regulations from the State Education Department. Where once policy stated a requirement to employ a stated percentage of full-time faculty, now the Department mandates only that there shall be "a sufficient number of full-time faculty". The statement ought to be embarrassing; instead it memorializes the worst feature of managerial flexibility.

Given the support of that regulation and the precedent of past practice, we should expect increased use of the most expendable employees by universities, especially since the pool of qualified candidates for collegiate teaching jobs grows in proportion to the increase in numbers of returning students, many of them women. Let the irony of this be underlined. The expansion of demand for higher education among one group previously short-changed by our society now may yield cheap service to yet other sectors of population pushing for entry into middle-class employment.

Unions resist this dystopian tendency in higher education initially to protect career jobs. This can be very quickly generalized, however, into defense against the de-professionalizing of faculty work. University policies of eroding the significance of tenure, reducing the force of seniority, employing poorly paid low
status employees, abusing part-time employment and part-time employees, all contradict the organizational logic of a knowledge-driven institution. This should be contradictory to a system where identification with an intellectual discipline, a code of service before profit, and an ideal of autonomous self-direction form the core of the professoriate's belief system.

We can expect the contradiction between professional values and bottom-line management to sharpen, and, as it becomes keener, higher education unions will articulate their bargaining demands as a defense of professionalism and a call for true excellence. In practical negotiations, the defense of professionalism should appear first in efforts to control the process of induction into professional employment. Where large numbers of adjunct staff are engaged by university administration, or where graduate students are habitually assigned a significant proportion of instructional duties, personnel standards commonly loosen. The performance and promise of full-time staff are carefully assessed by peers and supervisors. Other staff are simply hired and rehired as class enrollments allow.

In defense of standards which professionals themselves have a hand in devising, and which they apply through peer evaluation, unions must argue that for the good of students and the institution everyone who teaches and everyone who supports instruction must be similarly evaluated at the point of hire, at each renewal, and whenever promotion may occur. Indeed, unions may argue that everyone, except those teaching as part of their graduate preparation, ought to be treated as an eventual candidate for tenure.

A Mutual Stake in Equity

The stakes involved in defense of professionalism are high, and accordingly, a union's campaign has to be broad. The demographic changes powering managerial practices also animate the union's. It is derisively said sometimes that the goal of academics is to reproduce themselves. This apparently is meant to account for the ways we teach, to explain why we give particular attention to majors in our discipline, or to characterize the thirst to teach graduate students. Of course, it is true. We actually do hope to reproduce ourselves, at least in the sense of transmitting the counter-intuitive knowledge and methodology that make up our specialized fields. It should be no wonder, then, that contracts negotiated by academics should also appear to be mechanisms for self-replication.

For example, unions see that affirmative action in the university has had uneven effects in the hiring of faculty and staff. Stated goals for employment of underrepresented groups are modest and failure to fill them too easily excused. One reason for the limited achievement seems to be that responsibility for affirmative action has rested almost exclusively in the offices of management, and implementation of procedures and goals has been widely viewed as accommodation to regulation rather than as a necessity for institutional integrity. A collective bargaining contract might change this condition and re-energize campus affirmative action. By its nature, a contract is taken to represent mutual understanding. For that reason, it secures broad acceptance, putting us all on record. A union and a management seriously interested in the survival of their institution as an agency of social change and improvement might very well negotiate a contract including a call for mutual participation in setting goals for hiring, consultative arrangements for sharing knowledge about applicant pools, dedicated resources for recruitment, grievability for discrimination, and discipline for discriminatory practices.

Will labor and management do this? Can they find a level of mutual self-interest that would motivate such bargaining? Perhaps, we can be sanguine about the possibility if we consider what is taking place in negotiating salary
arrangements that are complementary to the drive for equity embodied in affirmative action hiring programs. Public sector labor agreements outside the university world have successfully established a method and plausibility for studies of pay disparity associated with gender and ethnicity. Supplemening the basic settlements on salary, labor-management agreements in Minnesota, Washington, New York and elsewhere have set aside funds to rectify inequitable pay scales as they are identified by sound investigation and analysis. For a time, this approach to compensation was resisted in academic employment with the argument that in our individualized work compensation results from some sort of intellectual marketplace competition where unaided merit finds value-free cash reward. With a sense of justice and self-interest; self-interest on the union's part in gaining raises for its members and self-interest on management's part in protecting itself from the possibility of legal action, both parties can conclude that the "hidden hand" of the free market may not play fair. It should be only a matter of time until the same thought encourages bargaining for other higher education contracts that employ statistical studies and dedicated funds to neutralize bias in their university compensation.

A Win-Win Situation

The process of collective bargaining has an interesting generative effect. Preparing a package of demands, a union responds to the expressed needs and aggravating problems of constituency groups, but in devising resolutions, the unions discover broader, more generalized applications. In the politics of union contract packaging, as much as anywhere else, invention may be born of necessity. So, it is with a new tendency to include professional development within the scope of bargaining. Here, I refer explicitly to UUP experience.

The necessity to assist our union members in balancing the requirements for their professional advancement have led us well beyond traditional bread and butter concerns. Academic librarians and professionals employed on full-year contracts in support work, laboratories, and offices have little time for study and activity in their professional associations. To meet that problem, UUP negotiated a program of study leaves and research grants. In doing so, we have found, as have our colleagues in the Professional Staff Congress who were there before us, that a contract can be a remarkable instrument to secure modest funding and the invaluable resource of time for all of the people we represent, including the academics for whom the advantages of a university teaching schedule turn out to leave less time for research than an outsider imagines.

Once having entered upon a course of bargaining about improving conditions for professional development, there is unlikely to be any turning back by union or management. For the academic union, discovery of ways to support advanced training and research represents a commitment to the professionalism the union seeks to defend in the other areas previously mentioned. For management, stipulation in the contract of opportunity for employees to meet criteria for reappointment, tenure, and promotion can make personnel evaluation lucid and university quality increasingly demonstrable.

Sort of a Conclusion

It is premature to claim major consequences for these new directions in bargaining, but on the supposition that tracks have been laid by articles that provide for professional development we might speculate that before long higher education contracts will also contain language designed to stimulate improvements in teaching, as recent contracts in public schools increasingly do.

Yet, one hesitates to go further, wondering if now is the time to introduce a sobering, cautionary note. After all, the annual reports on unionization among
college faculty issued by the National Center for the Study of Collective Bargaining give us mixed signals. Faculty bargaining, the Newsletter for January-February 1988 tells us, is increasingly a phenomenon of the public sector. The private sector has been blighted by the Yeshiva decision. Elections for bargaining agents are moderately frequent, but they occur increasingly among the adjunct bargaining units split off from the rest of the faculty.

No, I won't back off. I noted that my remarks would be speculative rather than predictive, something in the line of a fiction informed by a vision of social change. The theme of my fiction, that is, my interpretation of social reality is that collective bargaining is essential to higher education, but not because I believe management would malevolently destroy us all if we did not have a contract. The union becomes a grand thing, because for most faculty and staff in the university, it is only through the right of collective bargaining that the autonomy for professional work can be achieved. Most other relationships in the university accord us limited subordinate power. In departments and committees, we are never more than advisory, though we can be powerfully so. In the union however, we find a position, a stance that moves us out of the hierarchy of supervisory control, however briefly or incompletely. It is even a stance that allows us to work cooperatively with management, because we do so as equals.

In recognition of the possibility of such cooperation, there is increasing recourse to the use of joint committees to administer certain elements of the contract to provide the forum for discussion of the application of regulations like the Fair Labor Standards Act or classification systems to the terms of employment, and to dispense financial awards meant to correct disparities.

Critics within the union see the multiplication of joint committees in a contract as evidence that negotiators have failed to secure solid gains and are postponing the bargaining on difficult issues, or worse, evading bargaining altogether. Within the administration, critics of the joint committees must have their complaints too. Nevertheless, the fact is that because of the expanded scope of new contract agreements, a new employment relationship develops. Again, necessity can be seen giving birth to invention, this time to innovative shared decision making. Every area now subject to joint committee study or action once was a realm of exclusive management prerogative.

If we speak frankly, we will not say the new developments in collective bargaining are sweeping the country. For the time being, the growth of higher education organization correlates with displacement from the satisfaction of a professional career. Two-year college faculty, support staff, and adjuncts, the classes of employees most likely to be treated as semi-skilled workers, are the predominant source of new locals. For them, the new orientation of union professionalism holds great promise. Conceivably, a new national administration, perceptive enough to recognize Yeshiva as an anachronism, will foster an atmosphere in which that promise can be extended to the private sector. But, even if that does not happen, collective bargaining will remain a powerful force for professionalism and equity in higher education and the union an agency to create the sort of colleges and universities a democracy requires.

REFERENCE

I want to look at the current and future situation of American unions to compare it with that of unions elsewhere. Part of what we can use to guide us in understanding the future of unions in the United States is to see how different we now look from the rest of the world. I am then going to lay out four potential scenarios for the future of unionism in this country. Private sector unions of the United States are in the greatest decline they have experienced in our history, exceeding the decline in the 1920's. When unions were going down significantly in prior years they shared the workforce. As of 1987, 14% of the workers in the private sector in the United States were organized whereas it had been somewhere close to 40% twenty-five years earlier. The only positive area, in terms of the current strength of unions in the country, is in the public sector.

Look at the sector of higher education which is now one of the more highly unionized industries in the United States. If you go beyond higher education and include the whole education sector, teachers are the most highly organized large occupation in the country with the possible exception of airline pilots and a few special guys doing things on ships. The union movement in the United States has gone from a significant mass industry factory-based movement to today where its strong points are located in the public sector and among white collar workers in that sector. It is not that white collar workers are as organized as blue collar workers, but if you pick out the people like teachers, they are much more organized than, let us say, unskilled workers generally throughout the country. That is the current status in this country.

Now I want to discuss some results from the book I wrote with James Medoff several years ago which focused on private sector unions. If we are going to understand why the unions are in decline in the private sector and why they are doing much better in the public sector, it is important to understand what unions do and the cause of this problem. In looking at unions in the private sector, we stressed two things; the effect unions have on wages and productivity. Unions are viewed as a monopoly that raises wages and increases some costs. What we did was to look at private sector unions and stressed that they did a lot of other things that had much more diverse and complicated effects, both on the organizations which they unionized and on the country and the economy as a whole.
I want to pick up three of those things here. First, in the private sector there is no doubt that unionization reduces job turnover at workplaces. American unionized workplaces look like the Japanese workplaces in the sense of having a long-term labor force. Second, we stressed that there is a considerable union affect on productivity in some sectors under some circumstances. Third, whatever unions did to productivity and turnover, they still reduced the profits of companies. The major reason, in my analysis, why unions are in such trouble in the private sector has to do with the latter fact; namely, they reduce profits. In a world of increasing trade deregulation and, in some sectors, the rise of nonunion competitors those profit affects are rather large. That is what has dominated, I think, managements’ thinking about unions in the private sector and has led to rather vigorous anti-union campaigns that began in the 1970’s and became more successful in the 1980’s. The major reason, I feel unions are in great decline is that they have had negative affects on the profitabilities of companies and management has used all the tools in its arsenal to beat them down.

I want to take the same four points with respect to the public sector. Most studies of wages in the public sector show much smaller wage affects. The main reason unions reduce profits is because they increase labor costs through wages. In productivity, there may be positive affects, in some cases negative, but certainly that is not a major factor in any economic study that I know. We find in the public sector wage affects are smaller.

What you find with respect to turnover in the private sector is that there are a lot of temporary layoffs but workers do not quit. The General Motors worker does not quit his job but he is laid off at various times and then comes back to the job. The public sector is very different and much more concerned about job security. You find a much lower level of layoffs in organized public sector workplaces than in others.

The key difference between the public and private sector has to do with profit. What is the equivalent of profits? Management looks and says, "Oh my goodness, the union is coming into my workplace. In the private sector, I am going to lose some money and I better try to keep them out." In the public sector it is not profits that are the key, it is votes. Public sector unions contribute to political campaigns by playing a role in elections and are actually able to turn themselves from something that reduces success of management to something that potentially increases the success of management. One sees incredibly less opposition to unions in the public sector.

The reason I stress profits versus votes is that most public sector labor law copied the National Labor Relations Act (NLRA). It is a similar type of law at the state level, enforced by different people. In one place, management goes on a rampage of illegal and legal acts and brings in high priced consultants to defeat the unions. In the other sector, they do not do anything like that. There may be particular instances in which people may say, "...gee whiz at my institution, management really fought hard". My institution, Harvard, is currently engaged in an organizing drive, not for faculty but for secretarial and technical people. They are going to be voting on the 17th of May and while the unions complain saying, "gee, Harvard's been really mean in their efforts to keep the union out", any private sector union would be ecstatic if all that happened were a couple of letters from the president and a few meetings here and there. It is not in the same league as what goes on in the private sector. The difference that basically measures success is in one case profits, while in the other it is do the politicians get reelected?

Now we find ourselves in a situation in which our public sector unions have had a remarkable change from when the organization was formed about 20 years
ago. Public sector unions were much weaker than private sector unions. If you go back to the 1960's, you would see may be three, four, five percent of the public sector organized. Today where the public sector unions are located, they are, in some sense, over represented compared to the private sector.

What is going to happen into the future? Are we going to see the private sector in the United States continue to deunionize and will we become the only major free country without a significant unionization of our private sector workers but with a public sector workforce that will be substantially unionized? Or, will we see, if we get no unions in the private sector, that we begin getting pressures on the public sector as well? Or, will there be some changes. I caution you of the dangers in predicting the future. Maybe I should have brought with me a little tape recorder to make sure that whatever things I might say about the future are either correctly said or sufficiently muffled so that no one would ever say I predicted anything. If you go back 20 years was there anyone who was saying the public sector was going to be the most highly successful area of collective bargaining in the United States. No one was saying that. You go back in the textbooks and you will find there were all these reasons why white collar public sector workers do not need unions. They have a lot of women, they are white collar, they are this, they are that. Anything I say should be viewed in that particular light.

What I am going to do is lay out four scenarios and then tell you which one I think is the most likely. First, take what I consider in some ways to be the most likely, though with a probability of less than half; that is we will have more of the same. Whether we elect a Democrat or Republican, we are not going to see major labor law reform. Why will we not see any major changes in our labor laws in the country? Well, if you could not get a reform law passed in 1976-77 when unions were a much larger proportion of the workforce, ten points higher than they have today and, therefore, much more likely to influence different Congress people, their influence has got to be less now. Theirs is a smaller fraction of the world. I think this is pie in the sky thinking.

In the current situation, the private sector unions in the United States are effectively organizing no one. According to the last fourteen National Labor Relations Board (NLRB) published statistics, unions organized 100,000 workers. That does not exactly sound like no one but we have 100,000,000 people in the United States labor force, so that one-tenth of one percent is a very small number. Of those people, the 100,000 that they organized, they only got contracts for about two-thirds of them. Getting contracts representing 60,000 is equivalent to nothing in this country as far as I can see. Plants are going out of business, both union and nonunion, and since all the plants are born nonunion and they go out and die union and nonunion, you can just see there is a tiny trickle. More of the same scenario would indicate that by the year 2000, we will be below 10% of organization in the private sector which will bring us back to numbers like those in the 1890s in terms of unionization in the private sector. We will stick out like a sore thumb in the world because there will not be any other major country with that low a level of private sector unionization.

Take one of the most conservative societies you can think of, for instance Switzerland. Some 35% of its people are organized in trade unions. There has been no decline. There is no anti-union campaign by management. Actually, unionization in Switzerland has grown. Canada has something in the order of 35-40% unionized in the private sector. It is certainly not declining although you can argue whether it is growing or has been holding stable.

The United Kingdom under Margaret Thatcher has had a big fall in unionization and is now down to about 46% of the society. Mrs. Thatcher is engaged in a massive sort of anti-union activity, although, I must say, in the
British setting many of the things that she has advocated most Americans including those who hold most favorable union views, would agree are positive. These include things like letting people conduct secret ballot postal elections for their leadership rather than letting a small of group of ideologues control their unions. In this scenario, we would appear quite in contrast to other Western nations.

What about public sector unions? The major reason, I think, for their success is that unions are organizations that can help get votes and politicians are responsible for legislation to enable union organizing. I see no evidence of any return to a movement back toward the laws of the pre-1970s and '80s (i.e. either outlawing unionism or outlawing collective bargaining or things of that nature). The trend has been consistently towards more favorable laws for the public sector. Public sector management and labor, unlike the private sector, have co-joined interests which effectively make for strong unions.

As long as there is this joint interest, you will see continued strength in the public sector and as likely as not, declines in the private sector. Currently, we are dropping off in private sector unionization by something close to one point a year in density. We are at 14% now and will probably hit 10% before the year 2000 and then go below that.

That is scenario one. It is the easiest one because you are basically forecasting or projecting out what has been going on in the society. The problem with anything like this is that there is always some massive change. If you had forecasted out the organization in the public sector for 1960, you would have said, never been, never will be, except for some rare cases. We have to look for something that might make a change.

I am going to outline three possible changes in order of what I think is decreasing likelihood. I will start off with what a lot of unions are talking about which goes back to something that has happened in the public sector which is having "near unions" or associations that really do not engage in collective bargaining. I think these will extend into the private sector, particularly for white collar workers, where they would do some things for their members, but not have the strength to really oppose management. They might eventually change into collective bargaining organizations. The National Education Association and AAUP were just like this. The history in the public sector certainly suggests that this is a viable and, in the long run, successful strategy. The transformation of the NEA is perhaps the most striking example. Many of you may be familiar with the internal debates at the AAUP where one moves to a mixture of association and collective bargaining agent. I see that as a very viable and possible thing in some parts of our country.

The AFL-CIO did a poll on this particular option in 1985 or 1986. They found out, yes, a lot of people would be interested in joining some kind of association with low dues. You know, you have to get something like lower priced credit cards, mass purchase travel club and other benefits which you can get now if you are a union member. You tie a whole bunch of benefits to people that would make them want to join this association. But then they said if the association was called a union, or if it had any attachment with the AFL-CIO, people's interest suddenly died off. It has to be some kind of organization that exists separately from the current union world in the United States.

If we look at the history of American trade unionism we might see some other organizations forming out there. When you look at other countries, the blue collar and white collar worker are not in the same central federation. They have two separate federations. Moving from this "near union" or association kind of model, I would not be surprised to see in the future the break-up of the
AFL-CIO with the white collar people pulling out. I think of the communication workers, people who basically deal with more white collar, more women workers, the dynamic part of the organization, the growing part of the organization uniting with the NEA in having a white collar association or union federation. When I mentioned that to the AFL-CIO, they first said it was ridiculous to think of it. And then they said maybe we do not want to talk to you any more. There is clearly precedent in our history, and in other countries, for the dynamic part of the union movement to pull itself aside. Japanese trade unions have just had that kind of massive reorganization. The private sector unions have pulled out and formed a new federation. There it is very different as the public sector unions tend to be the leftists associated with the dying Socialist party. They have said they will let the public sector unions in in ten years or so but for the moment, they want to have a whole new face on their union movement. That becomes another possible situation.

I also should say, when I suggested something like this to the NEA, they stated that we have enough trouble with teachers to think of an arrangement in which we would be a member of a large scale association. I do think, however, that in a society that is increasingly white collar it has to be from this white collar public sector that we will see any significant growth of unions. That is going to mean that unions are going to be much more like professional organizations than they are like the traditional industrial styled unions. They will be much more like the old-line craft unions in that respect. That is the second possible scenario.

Third would be what would happen if, in fact, we passed a major labor law reform. Democrats sweep the country next year, Orin Hatch gets a change of heart, suddenly decides that he is a former union member and that he really is all in favor of trade unions in the country. Instead of filibustering against the labor law reform, he will filibuster for it. A very unlikely event as you can see.

The best kind of law we could possibly pass would be something Canadian style. Canadian style labor law operates something like this. Take my university. The workers would not have to go through an election necessarily in which Harvard University does some campaigning against them. You come in with say two-thirds of the people signing cards indicating that they want a union. A board just certifies that. No need for an election. Management is removed at the outset as playing a part in a major adversarial relationship. If we did that we would have an outburst of unions in the country. One-third of the people who are nonunion say they would like to have unions. It is two-thirds of the nonunion minorities in the country that say they would like to be represented by a trade union. If we went to that style of law, I think we would become much more like Canada. Instead of 10% organized in the private sector, 14% today but going down, we would be on the order of 25-35%. I do not think we would go to complete unionization because Canada has not gone that far and, if anything, the Canadians are more pro-union than are the Americans. I regard that as a less likely kind of event. I do not see a labor law reform occurring and I do not see people waving a flag saying, "You're going to do away with the secret ballot." That just sounds totally unAmerican regardless of how many people say they want unions beforehand.

The fourth scenario has some precedent in American History, but it is the kind of thing no one can predict. The unions in the United States have traditionally grown in sudden spurts, all at once. The public sector got organized very rapidly. All at once Ford, General Motors, and the steel companies got organized. It occurs to me that, for this to happen, there has to be some sort of rather significant change in the society as a whole. In the American public sector, it was through the law. In the private sector, it was not just the Wagner Act, it was John L. Lewis and it was massive social upheaval. Well, do you see

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any massive social upheaval in the United States? I could conceive that if Jesse Jackson were a trade union leader, not a politician, that might indeed foment large scale union movement. Cesar Chavez did a certain amount of that in California, but then he has proven incapable of transforming himself into a leader in collective bargaining. His organization is there and they exist, but they have not been able to make the second step beyond the charismatic with an explosive growth.

Think of your typical trade union leader in the United States. It is awfully hard to think of one of them acting charismatically, you know, thinking of new things, taking dramatic steps. John L. Lewis punched out a guy about twice his size, the head of the carpenters' union. It was a dramatic gesture. We do not know whether that was purposely done to grab attention. It may very well have been. You cannot imagine Lane Kirkland doing that. Just go down the list of people. That is not their business. It is hard to see where that sort of explosive growth is going to come from, unless some other people get in this business of organizing workers.

I would say, given these four models, the most likely, the most logical thing to me is this movement toward associations, "near unions", possibly with a bust up of the AFL-CIO and the formation of a white collar trade union center in the country. It would not be antagonistic to the existing AFL-CIO, but it simply would be better positioned to attract and organize the other workers. It always struck me that the group most suited to organize clerical and professional type people in private sector are the teachers unions from the AAUP, if I may call them a union, and the AFT and NEA. Why? Those have high prestige in the outside world in the sense that most people who are secretaries or technicians would think it would raise their status to be associated with teachers. Managers might not think that is necessarily fair, but a lot of people would. There you would have an extra edge. These unions have enough trouble at present without trying to organize secretaries as members of the AAUP. Very unlikely — NEA is a big organization. The AFT may be the most likely. It requires real strategy and a willingness to go out and challenge the existing unions. That is the most likely scenario if there is going to be a trade union movement in the United States in the private sector in the future though, I see no reason why the public sector unions will not do well.
I do not presume to summarize here all of the cases decided this past year which relate to or impact on collective bargaining in higher education and the professions. I have, of necessity, selected for discussion cases which are interesting to me, in the process doubtless omitting many cases which another commentator would have highlighted. Hopefully, my selections will be of some interest to you as well.

The cases I have selected for discussion all illustrate, in one way or another, what happens when the courts are asked to intervene in efforts by labor and management to resolve their own problems. They deal with substantive issues which are familiar to all of you:

1. a professor's effort to maintain order in the classroom and his rights under a university's dismissal procedures when a conflict as to these efforts arises;

2. the sanctity of arbitration decisions;

3. the effort of individuals to seek state-law remedies against their unions;

4. the effort by an urban college system and its faculty union to establish and implement an effective early retirement program;

5. the scope of negotiations in the public sector;

6. a union's legal right to access to a university mail system.

DISMISSAL OF A TENURED FACULTY MEMBER

The first case provides a fascinating and quite rare insight into the results of judicial intrusion into a university's effort to dismiss a tenured professor. Though the books are full of the almost invariably unsuccessful efforts of faculty members to get the courts to reverse unfavorable tenure decisions, it is relatively seldom that a court is asked to review a university's decision to dismiss a tenured faculty member for cause — rarer still, that the case arises
under pure contractual grounds.

Like most universities, Howard University has established procedures for the dismissal of tenured faculty members. Essentially, those procedures require that charges be brought before a faculty committee. The burden of proof is on the administrator bringing the charges; and the faculty member has the right to cross examine the witnesses called against him and to call witnesses in his own behalf. The faculty committee is charged to hear the evidence and to make a "decision". This decision may or may not be reviewed by the University's Board of Trustees. If the Board of Trustees does choose to review the decision of the faculty committee, the Board's decision is "final". If it declines to review the matter, the decision of the faculty committee is final.

Alan McConnell was a tenured professor of mathematics at Howard University. During the course of a basic mathematics class, a student responded to Professor McConnell's admonitions to stop talking in class by calling him a "condescending, patronizing racist". Howard University is a predominantly black institution. The student in question was black. Professor McConnell is white. The student refused Professor McConnell's request that she apologize and refused as well, his subsequent attempts to discuss the matter with her privately. She remained adamant in her refusal to apologize. When Professor McConnell renewed his request for an apology in the next class, the student told him to "go on and teach the class". Professor McConnell directed her to leave the classroom and when she refused, he had her removed by a University security officer.

Professor McConnell refused to continue to teach this class so long as the student remained in the class and refused to apologize. He was ordered by the academic vice president to continue. When he refused, the University invoked its dismissal proceedings, charging McConnell with "neglect of (his) professional responsibilities" — one of the stated grounds for dismissal contained in the faculty handbook.

Following a hearing, the faculty committee recommended against dismissal or any other penalty. It found that Professor McConnell was not guilty of neglecting his professional responsibilities, though the committee obviously recognized that ordinarily the failure to teach an assigned class would constitute such neglect. The committee held that "(a) teacher has the right to expect the University to protect the professional authority inherent in the teacher-student relationships". The committee also stressed it's finding that Dr. McConnell's colleagues did not consider him to have been professionally negligent.

The Board of Trustees ordered Dr. McConnell terminated. It offered no explanation of its decision, and there was a serious question raised as to whether or not the Board had seen or read the full report of the faculty committee.

Dr. McConnell sued the University, but the District Court granted summary judgment against him. The court found that Professor McConnell's failure to meet his classes constituted a kind of per se neglect of his professional responsibilities and that, in any event, principles of deference to university decision making rendered the Board of Trustees' decision essentially unreviewable except under an arbitrary or capricious standard. Since the Board followed the procedures set forth in the faculty manual, its decision was not arbitrary. McConnell v. Howard University, 621 F. Supp. 327 (D.D.C. 1986).

The Court of Appeals for the District of Columbia Circuit reversed. McConnell v. Howard University, 818 F.2d 58 (D.C. Cir. 1987). It held that the Board of Trustees' action was entitled to no special deference and that Professor McConnell was entitled to a trial de novo. The Court of Appeals rejected contentions that the system adopted by Howard University was analogous to a
system of arbitration with the resulting decision entitled to the deference ordinarily accorded to an arbitrator. To so hold would be to allow one party to a contract to determine absolutely whether or not the contract had been breached.

The Court of Appeals also rejected a proffered administrative law analogy in which judicial review of the Board of Trustees' decision would be analogized to the review of the decision of an administrative agency. Instead, the court stressed it was reviewing a contract between the professor and his university and that it would apply ordinary principles of contract interpretation in doing so.

Professor McConnell was to be allowed to try to prove that under prevailing norms at the University his conduct did not constitute neglect of his professional responsibilities; that the University owed him a duty to help restore order in his classroom as he saw it; that it did not meet this obligation; and that there were, in any event, mitigating circumstances which precluded his termination. Finally, he would be entitled to attempt to prove that the University failed to follow the procedures set forth in the faculty manual by failing to furnish the Board of Trustees with a complete copy of the report of the faculty committee.

On remand, the case was tried by a jury. After a lengthy trial, the jury — after answering a series of questions propounded to it by the district judge — found that the University had just cause to dismiss Professor McConnell.

THE SANCTITY OF ARBITRATION DECISIONS

Let's compare the experience of Professor McConnell with that of Isaiah Cooper — a comparison I think you will find interesting.

The Supreme Court struck panic last term in the hearts of advocates of the system of free and unfettered arbitration when it decided AT&T Technologies, Inc. v. Communication Workers, 475 U.S. 643 (1986). This term the court has chosen a dramatic fact pattern to tell us all, in a case called United Paper Workers International v. Misco, No. 86-851 (56LW 4011) (December 1, 1987), that it really does want courts to leave arbitrators alone. Misco, Inc. operated a paper converting plant in Monroe, Louisiana. Its collective bargaining agreement with the Paper Workers Union allows management to establish reasonable disciplinary rules and for ten years or more, the company had listed as causes for discharge the bringing of intoxicants, narcotics, or controlled substances onto company property as well as reporting to work under the influence of any such substances.

Isaiah Cooper worked the night shift and operated a very dangerous machine. He had twice been reprimanded for deficient performance. One day after the last reprimand — and presumably by coincidence — the local police legally searched Cooper's house and located a large amount of marijuana. The police also kept a lookout on Cooper's car which was parked at the company's parking lot. The police observed Cooper and two other men walking together in the parking lot. All three men entered Cooper's car and then walked to another car and entered it. The other two men left and Cooper was arrested by the police in the second car. Marijuana smoke was in the air and a lighted marijuana cigarette was in the car's front seat ashtray. Cooper was in the back seat. When the police searched Cooper's car they found marijuana "gleanings" and a plastic scales case.

Cooper pleaded guilty to a charge of marijuana possession based on the marijuana found in his house. He was not prosecuted for the incidents in the company parking lot. Cooper told the company that he had been arrested for possession of marijuana in his home.
When the company learned of the lighted marijuana cigarette in the car, they investigated and ultimately discharged Cooper for violating its rule against having drugs on company property. Cooper filed a grievance and the case went to arbitration. Five days before the hearing began the company learned that marijuana had been found in Cooper's car as well as in his home. The union only learned of this when the hearing began.

The arbitrator ordered Cooper reinstated with back pay. He found that the company failed to prove that Cooper had used or possessed marijuana on company property; and he refused to accept into evidence the fact that marijuana had been found in Cooper's car on company property because the company did not know of this when they discharged Cooper.

The company said "We'll take this one to the Supreme Court." The company was encouraged when the U.S. District Court agreed that the arbitrator's award had to be set aside as contrary to public policy. The Court of Appeals affirmed on the ground that Cooper's reinstatement would violate the public policy "against the operation of dangerous machinery by persons under the influence of drugs or alcohol".

The Supreme Court reversed. Relying on the familiar Steelworkers' decisions of nearly thirty years ago, the court stressed that the parties bargained for a decision by an arbitrator, not a court, and that is what they would get. Courts "do not sit to hear claims of factual or legal error" by arbitrators. "Improvident, even silly, factfinding", is no basis for setting aside an arbitrator's award.

The court also rejected the argument that enforcement of the award violated public policy. The court readily agreed that a policy against operating dangerous machinery while under the influence of drugs was supported by common sense. However, in order to reverse an arbitral award as contrary to public policy, something more than "general considerations of supposed public interests" is required. In order to set aside an award on policy grounds, it must be shown that implementation of the award conflicts with "laws or legal precedents". The Court of Appeals had conducted no such analysis and, as such, its decision could not stand.

In any event, the court expressed skepticism as to whether implementation of the award would necessarily violate public policy even as that policy was stated by the Court of Appeals. According to the court, the finding of marijuana in Cooper's car did not establish that he actually used marijuana while working.

STATE LAW REMEDIES AGAINST UNIONS

The question whether the state law claims of individual employees are preempted by the Labor Management Relations Act of 1947 continued to require the attention of the Supreme Court. In Allis Chalmers Corp. v. Lueck, 471 U.S. 202 (1985), the court held that "when resolution of a state-law claim is substantially dependent upon analysis of the terms of an agreement made between the parties in a labor contract", the plaintiff's claim is preempted. Allis Chalmers involved an employee's claim that his employer had intentionally and repeatedly failed to make payments to him which were required under the disability plan negotiated with his employer by the union. The facts, he alleged, constituted a tort under applicable state law. The employee did not avail himself of the grievance procedure contained in the collective bargaining agreement. The Supreme Court overruled the state court decision and held unanimously that the employee's claim required a construction of the collective bargaining agreement and was, hence, preempted.
In *IBEW v. Hechler*, 107 S.Ct. 2161 (1987), an employee sued her union claiming that the union's contractual relationship with her employer created a duty of care on the part of the union to ensure that she was provided a safe place to work. Plaintiff's claim depended on obligations the union had allegedly assumed through its collective bargaining agreement with the employer. The Court of Appeals upheld plaintiff's claim. It found that she stated a claim of common law negligence that was not preempted by federal laws. That court concluded that "though the (collective bargaining) contract may be of use in defining the scope of the duty owed, liability will turn on basic negligence principles as developed by state law".

The Supreme Court unanimously reversed. It found that plaintiff's claims of negligence on the part of the union "assume significance if — and only if — the Union, in fact, had assumed the duty of care" alleged in the complaint. The determination of this basic question requires the construction of the collective bargaining contract. "The need for federal uniformity in the interpretation of contract terms therefore mandates that here" plaintiff's claim is preempted by section 301 of the Labor Management Relations Act. Her claim — if it survives the union's contention that it is barred by the statute of limitations — will have to be determined by reference to federal labor law rather than state negligence law.

**THE LEGALITY OF FACULTY EARLY RETIREMENT SYSTEMS**

Problems associated with the aging of the professoriate are familiar to many of you. A case recently decided by the U.S. Court of Appeals for the Seventh Circuit illustrates the pitfalls in store for those who seek to address them.

In 1982, the AFT faculty local at the Chicago City Colleges entered into an agreement with the Colleges which provided, among other things, for an early retirement program. Three professors brought suit complaining that the plan discriminated against persons over the age of 65 in violation of the Age Discrimination in Employment Act, 29 U.S.C. §§ et seq.

The early retirement program was open to faculty members between the ages of 55 and 69. The plaintiffs complained about two aspects of the plan, both of which they claimed impermissibly penalized individuals who retire at age 65 or older as compared with those who retire at a younger age. First, the plan allowed early retirees to receive some of their accumulated sick pay in a lump sum at the time of retirement. However, those who take early retirement after age 65 receive a much lower percentage of their sick pay than those who retire at younger ages.

Second, those who retire at age 65 or older cease to receive the college's insurance coverage, while those who retire prior to age 65 receive such coverage until age 70.

The district court granted summary judgment dismissing the complaint. The Court of Appeals reversed and remanded the case for trial. Clearly, the early retirement program treated older faculty members in the pool of those eligible to take early retirement less well than younger faculty members in that pool. The question for the court was whether or not the less favorable treatment was the result of a "bona fide employee benefit plan such as a retirement, pension, or insurance plan which is not a subterfuge to evade the purposes of (the ADEA)", in which event it would be permissible under section 4(f) (2) of the Act. 29 U.S.C. § 623(f) (2).
There is no question that the treatment was pursuant to a "bona fide
employee benefit plan", within the meaning of section 4(f) (2). The more difficult
issue was whether or not the treatment was a "subterfuge" for age
discrimination. Nothing in the ADEA prohibits employers from varying benefits in
accordance with their costs. As Judge Posner, writing for the court, put it; "if,
because older workers cost more, the result of the employer's economizing
efforts is disadvantageous to older workers, that is simply how the cookie crumbles."

The colleges argued that the differential treatment of faculty members over
65 was the result of such cost saving efforts. But, the Court of Appeals was
skeptical. It concluded that there were questions of fact on these points which
required a trial.

It appears to me that the colleges will have a difficult time prevailing at
trial. For they will apparently have to prove that the early retirement program
was not a device designed simply to induce faculty members to retire by age 65;
yet, that is exactly what the intent appears to have been.

The court expressed some sympathy for the colleges' efforts to deal with an
"era of declining enrollments and financial stringency". It expressed sympathy as
well as with "the plight of young academics who cannot find decent teaching jobs
because tenured faculty refuse to retire, and with the concerns of those who
believe that the quality of American higher education is endangered by the
prospect of faculty gerontocracies protected by the ADEA".

However, the court also observed that "colleges and universities lobbied
hard with Congress against the raising of the minimum mandatory retirement age
to 70 (and its elimination altogether (sic), effective in 1994), and they are a
powerful lobby. They lost and they cannot be allowed by indirection to
reinstitute what was for so long the age-65 mandatory retirement norm." Karlen
v. City Colleges of Chicago, 837 F.2d 314, 320 (7th Cir. 1988).

To my mind, this is a pretty good example of the difficulties facing those
who would today attempt to resolve complex labor relations problems through
private agreement. The Karlen case has had an impact on another ADEA case
involving faculty rights under the ADEA.

In Bell v. Purdue, the faculty plaintiffs attacked Purdue University's
practice of declining to make contributions to the pension plans of faculty
members after they reach age 65.

As you may know, one of the trade-offs which preceded enactment of the
1978 Amendments to the ADEA appeared to allow employers to suspend pension
contributions to employees at pre-age 70 ages when such practices are embodied
in bona fide pension plans. The plaintiffs in the Purdue case contended that they
are entitled to an opportunity to prove that Purdue's practice is a subterfuge for
the University's desire to discriminate against faculty members who work past
age 65. The University argued, essentially, that the legislative history of the
1978 Amendments gives them an absolute right to suspend contributions at age 65
— the age contained in their pre-1978 pension plan. The University prevailed in
the district court. But, in an unpublished opinion released on April 25, 1988, the
Court of Appeals reversed and sent the case back to trial relying on the panel
decision in Karlen. Bell v. Purdue University, No. 87-2146 (7th Cir. April 25,
1988).1

THE SCOPE OF NEGOTIATIONS IN THE PUBLIC SECTOR

Just as the large body of positive law regulating the employment

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relationship impacts the ability to resolve problems through negotiation and agreement, so state court decisions construing public sector bargaining legislation can expand or contract the possibilities for private agreement through the construction of the scope of negotiations. One such decision is the decision of the Maryland Court of Appeals last December in Montgomery County Educ. Ass'n v. Board of Education, 311 Md. 303 (1987).

In Montgomery County, Maryland, the school teachers have been organized since the late sixties. Under the law which regulates their bargaining relationship, matters of "educational policy" are reserved to the School Board and its administration. As I suppose is true in many school districts, there has evolved a fairly elaborate system of salary schedules and job classifications — especially as related to the nonteaching personnel represented by the teachers' union.

The School Board, quite frequently, "reclassified" jobs in a fashion which could change the salary and benefits of specific individual employees in the union's bargaining unit. The union requested bargaining on the subject of reclassification and the School Board refused, claiming it was within its control over matters related to educational policy. The Maryland Court of Appeals agreed. Endorsing a balancing test established by the State Board of Education, the court found that the submission of reclassification decisions to collective bargaining would interfere with the School Board's ability to manage the school system and thus, would have a harmful impact on its ability to formulate educational policy.

A UNION'S LEGAL RIGHT TO ACCESS TO A UNIVERSITY MAIL SYSTEM

The last case I wish to discuss is Regents of the University of California v. Public Employment Relations Board, No. 86–935 (U.S. Sup. Ct., April 20, 1988).

An affiliate of AFSCME was attempting to organize employees of the University of California. It asked the University to deliver union mail to university employees through the university mail system. The university refused and the union filed an unfair labor practice with the California Public Employment Relations Board. The university claimed that to allow the union access to its mail system would violate the Private Express Statutes 18 U.S.C. §§ 1693-1699, 39 U.S.C. §§ 601-606. These statutes establish the postal monopoly and generally prohibit the private carriage of letters over postal routes without the payment of postage to the United States Postal Service.

The PERB and the California Supreme Court disagreed with the university. They held that the Private Express Statutes do not prevent the university from allowing the union access to its mail system and that its refusal to do so violated California's Higher Education Employer-Employee Relations Act.

The Supreme Court reversed. It found that two statutory exceptions to the Private Express Statutes, relied on by the PERB and the California Courts, did not apply to the use of university mails by the AFSCME local. Accordingly, those statutes prohibited the university from extending to AFSCME the right to use its mails system to deliver mail to its members.

The principle exception construed by the court is the so-called "letters of the carrier" exception which extends to mail relating to the "current business of the carrier". 18 U.S.C. § 1694. The Postal Service has consistently given this exception a narrow construction — limiting it to letters which are carried by the carrier itself or some integral part of the carrier and which are closely and directly relating to the business of the carrier.

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Although the Supreme Court did not reach the question of whether or not the exception is limited to letters written by or addressed to the carrier, it nonetheless held that the exception did not apply because the letters in question related to union business, not university business. In arriving at this result, the court rejected the PERB's argument that California's Higher Education Employment Relations Act makes harmonious labor relations the business of its state universities so that the union's business was, in fact, the university's business as well.

The second and more confusing exception rejected by the court is the "private hands" exception which provides that the postal monopoly "shall not prohibit the conveyance or transmission of letters or packets by private hands without compensation".

In brief, the court held that this exception is not applicable when there is a business relationship between the parties involved. According to the court, there is an arms-length business relationship between the union and the employees on the one side and the (University) on the other. By delivering the Union's letters (the University) would perform a service for its employees that they would otherwise pay for themselves, through their union dues. This service would become part of the package of monetary and nonmonetary benefits that appellant provides to its employees in exchange for their services. In our view, carriage of the Union's letters pursuant to such an exchange of benefits necessarily means that the carriage is not 'without compensation'. Accordingly, it does not fall within the private hands exception.

From my perspective, this case came out of the blue. I had always assumed that universities — and for that matter other public and private sector employers — at least had the discretion to establish their own mail services and to extend the service to employee organizations, including unions. I was supported in this view by the court's decision five years ago in Perry Education Assn. v. Perry Local Educators' Assn., 460 U.S. 37 (1983). In that case, as you recall, the court held that a school district could extend mail privileges to the union representing its teachers while withholding the same privilege from a rival union which had no representation rights. Why didn't the private express statutes bar the privilege extended by the Perry School system to its teachers union? Apparently, they did; but because that issue was not raised by the parties, the court dealt only with the constitutional issues which were raised, ignoring the fact that the right extended to one group and withheld from another could not legally be extended to either.

Although, so far as I am aware, this is the first time that this issue has been before the courts, the Postal Service has consistently taken the position that the letters of the carrier exception does not apply to unions. A 1979 postal regulation has construed the letters of the carrier exception as applicable to the carriage of mail by a college or university in behalf of "bona fide student or faculty organizations" provided the mail is addressed to campus addresses. 39 C.F.R. §320.4. However, this provision does not, in the view of the Postal Service, extend to faculty unions. The Postal Service does not consider a faculty union to be a bona fide faculty organization for these purposes.

The impact of this decision is difficult to predict. So far as I am aware, the Postal Service does not police its regulations so that many existing arrangements may simply remain in place. On the other hand, it is doubtless the case that
college and universities (and for that matter school districts and other employers, public and private) which presently extend mail privileges to the unions representing their employees would now have a basis for withdrawing those privileges even if they are included in a collective bargaining agreement. At the same time, universities wishing to continue to extend mail privileges to their unions may well be able to distinguish their situations from the precise facts which were before the Supreme Court.

The Postal Service has never squarely faced the applicability of the Private Express Statutes to a self-contained university mail system operating within a single campus. I am informed that it would probably depend on facts relating to whether or not the campus mail was delivered over "postal routes", such as city streets. The Private Express Statutes may not apply to a situation where mail is delivered by the Postal Service to a single mail room and is then distributed over that single campus by college or university personnel. However, the Postal Service may construe the Private Express Statutes as applicable even in this situation if the university delivers its mails over "postal routes", i.e. city streets.

FOOTNOTE

1. The order in Bell v. Purdue University had not been received by the author at the time these remarks were delivered. The text has been modified to reflect the order.
CAMPUS BARGAINING
B. WHAT DOES THE CONTRACT COST IN DOLLARS AND CENTS?

James H. Tinsman, President
Association of Pennsylvania State
College & University Faculties

INTRODUCTION

Costing the contract is a complex process, however, an acceptance of certain assumptions can make the process more understandable. The following three concepts are specific to our situation in Pennsylvania and constitute the framework for my remarks. While union and management might obviously disagree over whether a five percent increase is inadequate or excessive, it is pointless to them to disagree significantly over how much that five percent salary increase costs in dollars and cents. Both parties know, or should know, that the increase will cost X (let X = a hypothetical $8,000,000) in the salary base plus other costs and the only issue is whether or not that amount is satisfactory. Accomplishing this requires cooperation between the parties and accuracy with respect to both the descriptive data and the calculations performed thereon. It also calls for the establishment of a data base.

The State System of Higher Education (SSHE) and my particular union, APSCUF, have in our Collective Bargaining Agreement (CBA) professional ranks and associated salary ranges with a series of five percent steps for each rank/range. Furthermore, there are a series of contractual principles that govern the way in which this salary schedule is implemented for basic pay purposes, supplementary pay, promotion, and in a variety of other areas.

In APSCUF-SSHE negotiations, while salary increases will affect certain types of supplementary compensation, these do not significantly impact on the total university budget. Salary increases may well affect remuneration for the course(s) and the number of frequency of course offerings but not the ultimate university bottom line.

THE DATA BASE

The crucial step in costing a faculty contract involves the establishment of a data base and its continual updating. Recently, this has been made easier due to cooperation between APSCUF and the Chancellor's Office. However, there was a time when we had to go to court to secure access to the information. The information required in data base formulation is as follows:
MAIN DATA BASE
- number of faculty
- rank and step of faculty within the rank
- number of faculty at the top step by number of years at that step
- faculty age profile
- data on promotion rates and retirement rates
- delineation between full-time and part-time faculty in each of the above stated categories.

FRINGE BENEFITS DATA BASE
- those involving a fixed cost per faculty member, e.g., medical/hospital
- those involving a percentage of salary, e.g., retirement
- those that change with income level (we have none such but some retirement systems do)
- those that are capped, e.g., social security
- those that affect only a portion of the faculty at any one time, e.g., sabbaticals.

It is important to be fully conversant with each of these and precisely how they work in order to facilitate costing. Without this up-to-the minute data base, the effort at costing becomes a rough estimate only.

USE OF THE DATA BASE

The use of the above data, and whatever else is relevant in your particular institution, can be relatively straightforward. We have done most of this with a PC and a spreadsheet. The basic analysis has been carried out for our system of about 5000 faculty by one person. It should be noted, however, that some problems have been experienced in handling the part-time data. Those problems have been related to the accuracy of the data and the rapidly changing character of temporary and part-time faculty and not the analytic methods.

We strongly believe in alternate checking of the data and this has been done at times with nothing fancier than a desk calculator. It is wise to do a gross "manual" calculation as a further check. After all, if the gross payroll is about $160,000,000, a five percent increase is going to be about $8,000,000 and the employer retirement contribution thereon, at a rate of 13%, will increase a bit more than $1,000,000. With an adequate data base and spreadsheet, we have made good estimates for the life (generally three years) of the CBA. We do not project beyond that point.

CONTRACT SPECIFICS

Let me turn to some examples. My examples involve a faculty of 5000 which equates to 4650 FTEs. The average salary is assumed to be $34,000, giving a
gross payroll of almost $160,000,000. About 80% of the faculty are at the top of scale. Since we know the rank and step of faculty, our program can easily move the 20% below the top step, up a step (the cost of a step is five percent) and tally that cost. If we negotiate a five percent raise, the program can further calculate that. Increased fringe benefit costs associated with both the step increase (20% of the faculty) and the negotiated increase (everyone) are then computed and added to the total. Without much effort, we have the major cost associated with the negotiations; in our case, it would be about $11,130,000.

A negotiations team must be careful to consider which articles in their CBA have significant costs associated with negotiations and which do not. In our current contract, there are 40 articles, three of which present clear and direct costs; salary, fringe benefits and health and welfare fund payments. While one might try to argue that practically all of the remaining articles are impacted in a substantial economic way by negotiations, in fact, there are really nine additional articles on which negotiations might appear to have significant monetary costs. Two of these nine articles, work-related, disability and retirement, are already subsumed under fringe benefits as originally discussed and will not be further mentioned here. In Pennsylvania, both are set by law and can only be increased by virtue of salary increases.

An analysis of several of the remaining seven articles seems to establish a costing pattern. The cost of chairpersons can be increased in two ways through negotiations — by increasing their stipend or by increasing the workload reduction granted to the chair. The cost of increasing the stipend is insignificant; that of the latter could be more substantial although neither compares to the general negotiated salary increase originally hypothesized. In the SSHE, with about 350 chairs, a 20% increase in that stipend would be at most $100,000. On the other hand, increasing the workload reduction of every chair by three credits might call for as many as 87 new faculty to cover the involved classes. The cost could be as high as $2,500,000. The first item was one percent of the general increase; the latter 25%. The general negotiated salary increase of five percent has zero cost here.

The effect of negotiated salary increase on promotion is often overestimated. The SSHE has a maturing faculty with the result that promotions are fewer. Assuming a high of a three percent promotion factor, that would require approximately 135 promotions. The cost of the promotions themselves would be $200,000 plus fringe costs but we must remember that we are not negotiating promotions, that is included in past CBAs and will continue into the future. The negotiations cost would involve the effect of these negotiations on promotions. A five percent negotiated increase would thus make the normal round of promotions cost an additional $10,000 plus fringes.

Sick leave usage provisions are partly regulated by law and have changed little over the years. Except for the area of sick leave buyout upon retirement, neither party to negotiations have opted for significant recent changes. Negotiations can affect this in two ways, by negotiated salary increases that raise the payout based upon the current practice or by increasing the payment rate for unused sick leave. In the SSHE, a five percent negotiated increase might conceivably cost $65,000 more, certainly not a large amount. On the other hand, increasing the buyout rate by an average of five days per retiree would cost about $275,000, still not a large number but over 400% of the previous total. In either case, the negotiations effect, taken alone, would appear small.

The negotiated salary increase of five percent we earlier hypothesized produced relatively small consequences in the other articles, except for fringe benefits. Altering the character and implementation of the article/topic in question gives clearly larger costs; although they are not always significant. Set
forth below is a summary of increased contract costs:

<table>
<thead>
<tr>
<th>Article</th>
<th>5% Increase</th>
<th>Alter Article</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Promotion</td>
<td>$10,000</td>
<td>$200,000 + ($1500/per promotion)</td>
</tr>
<tr>
<td>2. Sick Leave Buyout</td>
<td>$65,000</td>
<td>$275,000</td>
</tr>
<tr>
<td>3. Chairpersons</td>
<td>$25,000</td>
<td>$2,500,000 (estimate)</td>
</tr>
<tr>
<td>4. Sabbatical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Not Discussed</td>
<td>$500,000</td>
<td>$1,650,000 (to give an additional 1% of the faculty sabbatical leaves)</td>
</tr>
</tbody>
</table>

A consideration of the other three relevant articles in our contract; travel, professional development and workload shows a similar pattern of small costs associated with a five percent salary increase but significant costs when we alter the way the article is structured. An additional word is necessary regarding workload: it is an extremely complex article with relatively minor costs associated with a general pay increase, however, it contains potentially monumental cost increases with concomitant changes in workload equivalencies.

SUMMARY

It is important to analyze carefully each item with an eye toward assessing its cost. Doing the detail work takes relatively little time if you do the following: 1. start with the data; 2. carefully set up your data and organize it for efficient analysis; 3. proceed step by step; 4. do not overcomplicate the process. Too many people try to make what is easy difficult; avoid this at all costs. 5. do not waste time on pennies. In APSCUF, we are dealing with a contract where a five percent increase involves more than $8 million dollars. We are projecting costs over the three-year term of a contract. Worrying about a trifle $5,000 or $10,000 is not worth it. You cannot budget that tightly in an enterprise whose total budget is over one-half billion dollars.

By doing the above, you can separate the attractive but low cost items from the rest. On the other hand, do not find yourself in the position of having agreed on contract provisions that cost a little here and a moderate amount there only to find that the total of these modest costs negatively affects what you are able to get as a salary increase. Do not let yourself be nicked and dimed to death. Remember that the big money item, and the one that your members want in the economic area, given the preservations of a good fringe benefits package and its gradual expansion, is the negotiated salary increase.
CAMPUS BARGAINING
C. PART-TIME FACULTY IN THE UNIVERSITY OF MAINE SYSTEM: LESS THAN FULL-TIME, MORE THAN ADJUNCT

Samuel D'Amico, Associate Vice Chancellor for Human Resources University of Maine

BACKGROUND

Over the past decade as the University of Maine System sought to meet a changing pattern and demand for course offerings generated by the influx of non-traditional students, the utilization of part-time faculty steadily increased. The practice of using part-timers was less driven by any conscious institutional desire to keep cost down than by mere budgetary inability emanating from years of low funding levels. The University preferred to utilize full-time faculty despite the cost, while still attempting to offer the desired variety of classes in multiple locations and maintaining reasonable class sizes. Neither a formal nor an ad hoc policy encouraging the use of part-time faculty existed. In fact, University policy statements during this period encouraged the use of a single session and, with the exception of one campus, had resulted in the de facto elimination of "continuing education" at the University's campuses. The policies also encouraged the broadest use of full-time faculty in all University programs, whether full-time or part-time, at both the undergraduate and graduate levels.

Nevertheless, by 1985, the full-time faculty in the University numbered about 1,200 and the part-time faculty approximately 500. The seven campus system had a student headcount enrollment of slightly over 28,000 at that time. Despite the increased reliance on part-timers and the concerns of administrators and faculty about the long-term effect on the quality of academic programs, no comprehensive University review had been undertaken with regard to the utilization and status of part-timers.

A small group of part-time faculty at the University of Maine System's Southern Maine campus ultimately spearheaded a system-wide organizing effort after numerous attempts spanning several years failed to obtain clarifications or refinements of employment conditions. In March 1986, a petition was filed with the Maine Labor Relations Board (MLRB) after the group obtained what the Board determined to be a sufficient showing of interest of pledge cards.

A "Catch-22" situation had existed for these part-time faculty due, in part, to the system-wide nature of bargaining mandated by the University of Maine System Labor Relations Act enacted in 1976 and, in part, by the inability of the separate campuses to make special arrangements or formal commitments which
deviated from the general employment policies of the University's Board of Trustees. No campus autonomy on these policies was perceived to exist, or formally allowed to exist, for the advocates of change within campus administrations.

The "Petition for Appropriate Unit Determination" which was filed in March described the unit as, "All part-time faculty teaching in the University of Maine System. This includes 525 employees." The petitioning organization with whom these part-timers had allied in their organizing effort was the University of Maine Part-Time Faculty Association, Maine Federation of Teachers/Associated Federation of Teachers, AFL-CIO, (PATFA) a labor organization which had not previously been involved in organizing in any of the University's five established bargaining units. In 1978, when the full-time faculty had chosen the Associated Faculties of the University of Maine, Maine Teachers Association/National Education Association (AFUM) as their bargaining unit, "No representative" was the only other ballot choice.

DEFINING THE UNIT

Within a week of the initial filing, the Associated Faculties of the University of Maine forwarded to the Maine Labor Relations Board a "Motion to Intervene in Petition for Appropriate Unit Determination" describing the bargaining unit as, "All regular, part-time faculty members employed in the University of Maine System. It is estimated that there are 50 employees in this unit".

The vast discrepancy between the petitioners in both the unit description and estimated unit size reflected still another problem that had exasperated part-timers in their previous dealings with the University. This difference was a result of differing interpretations of the University of Maine System Labor Relations Act. The Act stated that a regular employee, one covered by the bargaining statute, was an employee who occupies "a position that exists on a continual basis." The Associated Faculties of the University of Maine position also gave some indication of where that union's apparent strength lay in the event of an election.

The initial University reaction in response to the petitions was to concur with the unit description as proposed by the Associated Faculties of the University of Maine. Therefore, no disagreement existed among the parties as to the eligibility of the group defined as "part-time regular faculty" in accordance with the University payroll/personnel system. This group, forty to fifty in number, consisted of individuals who were 1) hired on an annual basis, 2) paid pro-rata or fractional salaries and 3) eligible for certain fringe benefits under existing University policy.

Further, except for an exclusion which had been voluntarily agreed to by the University and Associated Faculties of the University of Maine at the time of the original unit determination in 1978, these part-time regulars could well have been in the existing full-time bargaining unit represented by that union. Part-time regular employees were included in the four other represented University bargaining units. The only point of agreement between the three parties for the next several months was the eligibility for unit status of the part-time regular faculty.

The vast majority of part-time faculty, however, were defined as part-time temporary under the payroll system. These employees 1) were hired from semester to semester, 2) were paid on a credit hour basis, and 3) received no benefit coverage regardless of the number of credit hours taught or length of service.
The part-time temporaries at the University ran the gamut of types described in the American Association of University Professors, *The Status of Part-Time Faculty:*

1. Part-timers who would prefer full-time positions...

2. Those who serve part-time by choice but have no full-time employment outside the home...

3. Those who have full-time employment elsewhere...

4. The retirees...

**THE UNIT DETERMINATION PROCESS**

The key unanswered question for the unit determination process was whether or not this group of irregularly employed part-time, temporary faculty met the statutory definition referred to earlier, i.e. occupied a position that existed on a continual basis. As the unit determination hearing proceeded, a creative variety of employment-related practices and working conditions was revealed. Differing patterns emerged, not only from campus to campus but also from department to department at the same campus, with descriptions that at times left both University and union representatives shaking their heads in disbelief. For example, some department heads had established rigid "seniority" systems, while others proceeded from one semester to the next with seemingly arbitrary selections from the pool of applicants. Although there was a general practice that part-time temporaries should not be allowed to teach more than two courses per semester, deviation was not uncommon. Indeed, a few individuals were found to be teaching two courses at two different campuses!

Additionally, the market conditions for part-time faculty varied greatly between the geographically distant campus locations. The more rural sites experienced shortages of the desired types of qualified part-time personnel. The most urban campus, the largest user of part-timers, appeared to have an inexhaustible pool of qualified eligibles available to teach on short notice. It is not coincidental that the core of the organizing efforts and leadership for the part-time faculty arose at that campus.

After a time consuming survey and tedious research into University records, a list of part-time individuals was produced by the University in order to satisfy the informational requirements of the Maine Labor Relations Board and the two other parties. Though flawed, it provided the most comprehensive record ever assembled of the system's part-time faculty and, at the same time, revealed a number of disparate pay practices being utilized despite contrary University policy.

As the unit determination hearings progressed, the three parties became increasingly unsettled by the Maine Labor Relations Board's lines of inquiry and procedures, albeit for different reasons. At the same time, other elements were coming into play and causing the University to reexamine its position. Once the collection and analysis of data had been completed and shared within the administration, it became obvious that there existed a sizeable cadre of part-time faculty at most of the campuses with long and continuous teaching service.

The president of the campus which was the heaviest "user" of the part-timers and the system chancellor had long agreed that more equitable treatment of part-time faculty was overdue. Now, they and the Board of Trustees
also became increasingly sensitive to potential negative political ramifications that might accompany a protracted legal dispute regarding the status of the "part-time temporaries". Interestingly, but not surprisingly, the part-time temporary group included some members of the State Legislature.

Two months prior to the filing of the initial petition a study of the University by a special gubernatorial commission had recommended a major funding initiative. Legislation which had been introduced based on the report of the commission was passed in April, 1986 and contained a $15 million special appropriation for the University. Four million of the appropriation was for the University of Southern Maine, the largest user of part-time faculty and included funds for almost forty new full-time faculty positions at the campus. The allocation proposed by the campus and now supported by the appropriation was a direct result of the commission's finding of an inadequate staffing level and the consequent overly heavy reliance on part-time faculty; a situation which had been long complained of by the campus but previously ignored by the funding authorities in state government. So, in the summer of 1986 legislative support for the University was extremely positive and even encouraging for the first time in over a decade.

Ultimately, the uncertainty engendered by the actions of the Maine Labor Relations Board, the desire to treat the part-timer more equitably, and the need to maintain positive public and legislative relations resulted in a change of position by the University regarding the issue of statutory interpretation. A decision was made not to contest a Maine Labor Relations Board decision if the ruling was unfavorable on the still unresolved legal issue. That is, whether or not the intent of the legislation had encompassed collective bargaining for employees hired from semester to semester when needed.

Once the University determined not to seek judicial review in the event of a decision unfavorable to its position, a negotiated agreement concerning the composition of the bargaining unit was inevitable. Ultimately, the following unit description was agreed to by the three parties and approved by the Maine Labor Relations Board:

The part-time faculty unit shall include:

All part-time faculty members of the University of Maine System who teach credit courses or credit equivalent developmental or basis courses and who have been so employed for at least two semesters of the four immediately preceding semesters (fall or spring) and who are employed in the current semester.

The following persons are excluded totally from the unit:

All faculty of the School of Law; all full-time regular employees of the University of Maine System; all part-time regular employees whose primary function is not teaching; all persons excluded from the definition of University employee pursuant to Section 1022 (11) A, B, and C of the UMSLRA.

The following persons are excluded to the extent they are employed in the University as described below:
Unsalaried faculty; aides; persons teaching non-credit courses or programs; summer session faculty; all persons who are engaged in the supervision of student teaching or other clinical practice who are employed by the institution in which the supervision is given; all persons whose primary relationship with the University is a student relationship and who are teaching within the discipline in which they are students.

THE ELECTION

After still another round of administrative drudgery, a list of 288 voter meeting the eligibility criteria was produced and the Maine Labor Relations Board conducted the mail ballot election which had been agreed upon by the parties. The count on December 16, 1986 of the 212 voting eligibles was as follows:

<table>
<thead>
<tr>
<th>PATFA/MFT/AFT/AFL-CIO</th>
<th>153</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFUM/MTF/NEA</td>
<td>28</td>
</tr>
<tr>
<td>No Representative</td>
<td>26</td>
</tr>
<tr>
<td>Challenged/Unmarked</td>
<td>5</td>
</tr>
</tbody>
</table>

THE CONTRACT

The results reflected the frustration that part-time faculty had been living with over a period of years and provided an overwhelming demonstration of support for the Part-time Faculty Association. Uncertainty in obtaining appointments; disparate and inconsistent treatment between departments at the same campus and between campuses; lack of stability and regularity in hiring practices; and feeling left out of the University community combined as the leading factors which caused the unionization effort to succeed. While economic issues were and are still of great importance, they appeared in retrospect to observers on both sides to have been less critical than conventional wisdom predicted.

After a four month hiatus, a formal proposal was presented to the University and bargaining commenced. A tentative agreement reached by the parties was approved by the union membership and then by the University System Board of Trustees in January, 1988.

The negotiations never became excessively confrontational in nature. The rank-and-file members of the bargaining team appeared to identify strongly with the academic mission and goals of the University and showed sensitivity regarding most of the complex issues with which they were dealing. The University attempted to respond positively to the union's major objectives, while not giving away the ability to manage effectively and trying to balance the wishes of the part-timers with the full-time faculty's apprehension about the newest bargaining unit. The result was a collective bargaining agreement that provides for: a hiring procedure which gives preference to unit members based on previous satisfactory service; more regularized notice periods for appointments; guarantees of job-related amenities; benefits eligibility for long service employees and diversion of salary increases into the ranks where the greatest number of part-timers are concentrated.

The cost per course taught by part-time faculty remains less expensive than the equivalent course taught by full-time faculty as part of a regular workload. On a cost per credit hour basis, the cost for a part-timer is slightly over 60% of the cost when comparing that credit hour to one in a full-timer's regular
workload. However, the cost per course taught by part-time faculty is slightly higher than the overload rates for full-time faculty teaching in those ranks in which the majority of part-timers are employed.

The pool of qualified and flexible part-time academicians has been a vital segment complementing the full-time faculty in the University's planned effort to respond to changing student demographics. The use of part-time faculty provides both economic savings and educational value to the University. Certain program areas rely on part-time faculty to deliver core courses and to provide greater diversity in the curriculum. In general, the major use of part-time faculty is to teach the basic courses since the sheer number of introductory sections is so large. On the other end of the spectrum, the part-timers help provide a more enriched and specialized curriculum, both in subject matter and in the times and locations of course offerings.

The cost of this first settlement did not impact negatively on the full-time faculty since that unit had concluded their agreement almost six months earlier. There was serious discussion at the bargaining table regarding institutional commitment and the amount of time spent by part-timers beyond classroom teaching in University related activities. While the only conclusion reached was that there is as wide a range of commitment among part-time faculty as there is among full-time faculty, demands for proportional or close to proportional salaries are certain to be seen again. Further, the full impact of the forty new full-time positions at the University of Southern Maine, plus, a yet to be determined number of full-time positions at a newly created Lewiston Center is just starting to be felt.

There are many unanswered questions. Are those part-time faculty whose motivation for teaching was not primarily financial satisfied with the union's accomplishments in the non-economic areas which may have been their primary concern? Will the part-time faculty who would prefer to earn their living at the University maintain demands for increased salaries and benefits? And, at what point does the University draw the line and forego the expansion of programs and course offerings?

What the future holds in store for the parties is difficult to project, but the part-time faculty have made themselves a place in the University of Maine System and it will never be quite the same.
A. ELIMINATION OF MANDATORY RETIREMENT: ANTICIPATING FACULTY RESPONSE

C. Gregory Lozier, Director
Office of Planning & Analysis
Penn State University

INTRODUCTION

What do police, firefighters, prison guards, and tenured faculty have in common? These four categories of the national work force were granted exemptions in the 1986 Amendments to the Age Discrimination in Employment Act (ADEA) from the immediate elimination of mandatory retirement (Public Law 99-592, 1986). However, because the exemption for tenured faculty expires on January 1, 1994, there has been much speculation in higher education circles about how faculty will respond to the elimination of mandatory retirement.

The 1986 amendments to the ADEA have not been the only change in the retirement laws in recent years. In 1978, amendments raised the allowable age for mandatory retirement from 65 to 70 for most employment sectors, deferring to 1982 the shift to an allowable retirement age of 70 for tenured faculty (Public Law 95-2256, 1978). Both the 1978 and 1986 amendments raised many questions about the impact of the changes in the economy and the work force in general. Representative Claude Pepper of Florida, leading proponent of the changes, conducted exhaustive Congressional hearings, and numerous studies were authorized by Congress.

One such authorization in 1986 directed the Equal Employment Opportunity Commission to report on the expected impact of the prospective elimination of mandatory retirement in higher education. To be completed by 1992, allowing time for consideration of the extension for tenured faculty beyond 1994, the study is to be conducted by the National Academy of Sciences (NAS). Nevertheless, to date Congress has not appropriated the funds to conduct the large scale study that has been proposed by the Academy.

In the absence of comprehensive national studies, there remains considerable speculation about the prospective composition of the professoriate after January 1, 1994. Discussion of this issue most typically focuses on the need to find incentives to encourage faculty to retire and to promote infusion of new faculty into the profession. The fear is often expressed that higher education, by virtue of an outmoded tenure system, will be saddled with an aging, and implicitly less effective, faculty.
While not underestimating the potential significance of such a prospect, the authors suspect that the characterization of this issue in terms of the need to infuse "new blood" is incomplete. This paper argues that the issue is not primarily one of counseling out a greying faculty hanging on into their dotage; in many respects a more difficult problem may be that of replacing today's faculty with an equally qualified, committed, and vital professoriate in the coming decade.

This paper reviews some of the issues and trends relating to the professoriate that provide a context for looking beyond 1994; summarizes the conclusions of several preliminary studies dealing with the prospective impact of the elimination of mandatory retirement; provides an overview of several studies which have examined retirement and economic trends in other employment sectors; and concludes by exploring several measures by which faculty, administrators, and higher education associations can respond over the course of the next 10 to 15 years.

NATIONAL ACADEMIC PERSONNEL ISSUES AND TRENDS

There are a number of factors that must be considered when assessing the evolving status of the professoriate. Several of these factors have been well articulated by Bowen and Schuster (1986). Designating the American professoriate as "a national resource imperiled", Bowen and Schuster point out that faculty salary levels are perceived by a significant proportion of faculty as inadequate or non-competitive with salaries in business and industry. In what is basically a post-1950s phenomenon, a growing proportion of doctoral recipients are being attracted to employment outside of academe; over 40 percent of holders of doctorates today are working in business, industry, and government. With career alternatives, many of the brightest doctoral graduates are lost to higher education, and each year significant numbers of current faculty leave academe.

Over time, these developments may become more severe, with the college freshmen of today expressing more interest in careers in professional and technical fields, and a shrinking interest in college teaching and scientific research. There are even questions about the quality of academic talent pursuing the Ph.D. in recent years, as a result of the "brain drain" to professional fields (Hartnett, 1985).

Trends in the production of Ph.D. holders will also have significant bearing upon the availability of prospective college and university faculty. Tripling during the 1960s and reaching a peak in 1973, the number of doctorate degrees awarded in all fields declined slightly during the 1970s before leveling off at about 31,000 in 1978 (Office of Technology Assessment, 1985). That figure has remained relatively constant through the 1980s. However, the numbers of white American males earning doctorates have declined substantially. This decline has been offset by modest increases in numbers of minorities and females earning the doctorate, and significant increases in foreign nationals earning the Ph.D. Also, these shifts have not occurred evenly across disciplines. Women and minorities continue to focus on the humanities, social sciences, and education, and foreign nationals continue to cluster in engineering, the sciences, and technical fields.

Even as we see the need to entice more, better qualified, and more diverse baccalaureate graduates to pursue graduate education and to consider an academic career, federal policy appears to be reducing rather than improving financial incentives for graduate study. The 1986 income tax code revisions have increased the tax liability for graduate assistants. Also, the proposed 1989 federal budget outlines a 20 percent cut in graduate fellowships, including elimination of the new program of Graduate Assistance in Areas of National Need, which was funded for the first time only last year (Saunders, 1988).
A recent report by the AAUP Committee A on Academic Freedom and Tenure (1987) "notes with regret that...there is very little useful material available on current retirement decisions in higher education" (p.47). Observing that five years had passed since the change in the mandatory age of retirement from 65 to 70, the report inquires, "What has happened? How many faculty members have postponed retirement beyond the age when their institutions previously required it?"

In the absence of a comprehensive national analysis of the prospective impact of the elimination of mandatory retirement for tenured faculty, several limited studies have been conducted and are finding their way into the national dialogue. One of the studies was initiated by the current authors (Lozier and Dooris, 1988), who chose to utilize the participation of their home institution in an interinstitutional data exchange of 32 members of the Association of American Universities as an effective means of data collection. This set of institutions was deemed an appropriate group to study because, as suggested by Burke (1987), the research university "is the training ground for new faculty members as well as a principal employer. As such, it establishes the norms for the profession" (p. 200). The authors also suggest that this dual role doubles the stakes of the research universities in faculty turnover.

Twenty-four institutions returned the surveys, with the usable response rate varying by item. A data base including information on faculty age distributions by discipline comprised approximately 22,000 faculty. Among the findings from the Lozier-Dooris study were the following:

A. The study confirmed an earlier report of the TIAA-CREF that the vast majority of institutions (about 85 percent) did not take advantage of the four-year exemption provided to higher education for adopting the 70 mandatory age (Calvin, 1984). Twelve of 20 reporting institutions had already changed their mandatory retirement age to 70 prior to 1982.

B. The average age of retirement bears no obvious correlation to mandatory retirement age (see Table 1). Of more apparent significance is the stability in the average by institution and for the aggregate faculty pool of retirees; for nine of twelve universities and for the overall average over a five-year period, the standard deviation is less than 1.0.

C. For each of the five years studied, approximately two-thirds of the faculty had retired by the age of 66; of the two institutions with no mandatory retirement, only four to five percent deferred retirement until after age 70 (see Table 2).

The authors tentatively concluded that factors other than the age of mandatory retirement seem to be far more instrumental in determining the average age of retirement. Such factors might include the benefits of a particular institutional retirement program, or, as suggested by the recent AAUP Committee A report (1987), "a revival of high levels of inflation, or of expectations of high levels of inflation" (p.47). It is probable that such factors will continue to be important contributing variables in faculty decisions regarding
the appropriate time to retire, irrespective of the elimination of mandatory retirement. That considerations other than age of mandatory retirement need to be assessed is consistent with the findings of Bottomley, Linnell, and Marsh (1980), who concluded that such variables as rank distribution have a greater impact upon anticipated faculty retirements than changes in the mandatory retirement age. Similarly, a study by Farnsworth (1988) observed that retirement considerations are based primarily on three important factors: financially attractive retirement programs, special personal interests, and individual or family health concerns.

D. Lozier and Dooris also project that during the second half of the period between 1987 and the year 2000, the rate of faculty retirements will increase 150 percent—from approximately 20 percent to 30 percent of the current faculty pool. This conclusion was reached by applying historical retirement patterns to the age distribution of nearly 22,000 university faculty currently in place (see Table 3). (The assumption that retirement patterns will not be substantially affected by the 1994 legislative change is based on indications that retirement decisions are influenced by many factors, only one of which may be mandatory retirement provisions. Further discussion of these factors is presented in the following sections). The impact of this rate change (20 percent 1987-1994; 30 percent 1994-2000) is greatest when considered in terms of actual numbers. For these 22,000 faculty alone, there will be approximately 4,350 retirements between 1987 and 1994, and over 6,500 retirements between 1994 and 2000.

E. The accelerated rate of retirement will not affect academe evenly across disciplines (Table 3). Among the older faculties are those in disciplines containing especially large portions of the professoriate, including the languages, area studies, humanities and letters; math, life sciences, physical sciences, and science technology; and engineering and engineering technology. Twenty-seven percent of the faculty members in all three of these broad disciplinary areas are between the ages of 50 and 59. This is a particularly important cohort since faculty in this cluster will be between the ages of 57 and 66 in 1994 and between 63 and 72 by the year 2000. Assuming that patterns of faculty retirement will not change dramatically, the size of the age 50 to 59 cohort will lead to significant faculty turnover in these fields. These numbers comprise many of those faculty hired into academe during the strong growth period of the '50s and '60s. As Bowen and Schuster point out, the need to replace large numbers of arts and sciences faculty beginning in the mid-1990s will be especially acute, since this time frame coincides with projected increases in the number of high school graduates and corresponding increases in college enrollments (McConnell and Kaufman, 1984). In addition, the replacement of significant numbers of engineering faculty is compounded by current
Table 3
Distribution of Faculty by Age and Academic Area
Fall 1986
(N=14 Universities)

With % Age Cohort in Each Academic Grouping
(e.g., 60% of faculty in the academic area of agriculture are under 50)

<table>
<thead>
<tr>
<th>Academic Grouping</th>
<th>Under 50:</th>
<th>50-54 :</th>
<th>55-59 :</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>870 60%</td>
<td>183 13%</td>
<td>182 13%</td>
</tr>
<tr>
<td>Architecture &amp; Environmental</td>
<td>211 59%</td>
<td>42 12%</td>
<td>42 12%</td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Languages, Area Studies,</td>
<td>1,304 60%</td>
<td>304 14%</td>
<td>277 13%</td>
</tr>
<tr>
<td>Humanities &amp; Letters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>838 74%</td>
<td>100 9%</td>
<td>89 8%</td>
</tr>
<tr>
<td>Communications</td>
<td>273 65%</td>
<td>44 10%</td>
<td>50 12%</td>
</tr>
<tr>
<td>Computer &amp; Information Sciences</td>
<td>230 82%</td>
<td>23 8%</td>
<td>16 6%</td>
</tr>
<tr>
<td>Education</td>
<td>728 54%</td>
<td>218 16%</td>
<td>208 15%</td>
</tr>
<tr>
<td>Engineering &amp; Engineering</td>
<td>1,377 59%</td>
<td>342 15%</td>
<td>270 12%</td>
</tr>
<tr>
<td>Technology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allied Health &amp; Health Sciences</td>
<td>2,154 69%</td>
<td>387 12%</td>
<td>303 10%</td>
</tr>
<tr>
<td>Home Economics</td>
<td>220 71%</td>
<td>27 9%</td>
<td>26 8%</td>
</tr>
<tr>
<td>Law</td>
<td>279 66%</td>
<td>57 13%</td>
<td>37 9%</td>
</tr>
<tr>
<td>Library Science</td>
<td>61 53%</td>
<td>12 10%</td>
<td>24 21%</td>
</tr>
<tr>
<td>Math, Life Sciences, Physical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sciences, &amp; Science Technology</td>
<td>2,047 59%</td>
<td>530 15%</td>
<td>415 12%</td>
</tr>
<tr>
<td>Recreation</td>
<td>52 60%</td>
<td>11 13%</td>
<td>15 17%</td>
</tr>
<tr>
<td>Social Sciences &amp; Psychology</td>
<td>1,640 63%</td>
<td>328 13%</td>
<td>270 10%</td>
</tr>
<tr>
<td>Visual &amp; Performing Arts</td>
<td>694 56%</td>
<td>165 13%</td>
<td>184 15%</td>
</tr>
<tr>
<td>Other</td>
<td>607 62%</td>
<td>129 13%</td>
<td>101 10%</td>
</tr>
<tr>
<td>Totals</td>
<td>13,584 62%</td>
<td>2,902 13%</td>
<td>2,508 12%</td>
</tr>
</tbody>
</table>
Table 3 continued
Distribution of Faculty by Age and Academic Area
Fall 1986
(N=14 Universities)

With % Age Cohort in Each Academic Grouping
(e.g., 60% of faculty in the academic area of agriculture are under 50)

<table>
<thead>
<tr>
<th>Age Range</th>
<th>60-61 %</th>
<th>62-64 %</th>
<th>65-70 %</th>
<th>71+ %</th>
<th>All Ages</th>
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<tbody>
<tr>
<td>55</td>
<td>4%</td>
<td>78%</td>
<td>5%</td>
<td>72%</td>
<td>1%</td>
</tr>
<tr>
<td>18</td>
<td>5%</td>
<td>23%</td>
<td>6%</td>
<td>19%</td>
<td>1%</td>
</tr>
<tr>
<td>86</td>
<td>4%</td>
<td>104%</td>
<td>5%</td>
<td>86%</td>
<td>4%</td>
</tr>
<tr>
<td>32</td>
<td>3%</td>
<td>40%</td>
<td>4%</td>
<td>27%</td>
<td>2%</td>
</tr>
<tr>
<td>12</td>
<td>3%</td>
<td>19%</td>
<td>5%</td>
<td>21%</td>
<td>5%</td>
</tr>
<tr>
<td>5</td>
<td>2%</td>
<td>5%</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>72</td>
<td>5%</td>
<td>67%</td>
<td>5%</td>
<td>46%</td>
<td>3%</td>
</tr>
<tr>
<td>87</td>
<td>4%</td>
<td>142%</td>
<td>6%</td>
<td>96%</td>
<td>4%</td>
</tr>
<tr>
<td>103</td>
<td>3%</td>
<td>102%</td>
<td>3%</td>
<td>67%</td>
<td>2%</td>
</tr>
<tr>
<td>10</td>
<td>3%</td>
<td>12%</td>
<td>4%</td>
<td>15%</td>
<td>5%</td>
</tr>
<tr>
<td>7</td>
<td>2%</td>
<td>10%</td>
<td>2%</td>
<td>30%</td>
<td>7%</td>
</tr>
<tr>
<td>9</td>
<td>8%</td>
<td>8%</td>
<td>7%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>131</td>
<td>4%</td>
<td>171%</td>
<td>5%</td>
<td>153%</td>
<td>4%</td>
</tr>
<tr>
<td>2</td>
<td>2%</td>
<td>4%</td>
<td>5%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>99</td>
<td>4%</td>
<td>149%</td>
<td>6%</td>
<td>115%</td>
<td>4%</td>
</tr>
<tr>
<td>53</td>
<td>4%</td>
<td>71%</td>
<td>6%</td>
<td>54%</td>
<td>4%</td>
</tr>
<tr>
<td>33</td>
<td>3%</td>
<td>54%</td>
<td>6%</td>
<td>56%</td>
<td>6%</td>
</tr>
<tr>
<td>814</td>
<td>4%</td>
<td>1,059%</td>
<td>5%</td>
<td>863%</td>
<td>4%</td>
</tr>
</tbody>
</table>

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shortages in Ph.D.-trained scholars. There are already many faculty positions in engineering presently available but unfilled (Cordes, 1987). Wessell (Higher Education and National Affairs, 1987), Dean of Humanities and Sciences at Stanford University, concurs that there soon will be a substantial thinning of the ranks of those faculty who began their careers in the 1950s and 1960s. "The result", suggests Wessell, "is going to mean real difficulty in the coming decades for many university and colleges to hire enough high-quality faculty to maintain the standards we now enjoy" (p.4).

There have been two additional studies that reinforce several aspects of the Lozier-Dooris study. The Consortium on Financing Higher Education (COFHE, 1987) recently released the results of a survey focusing on college and university retirement programs at 28 public and private research universities and eight prestigious private liberal arts colleges. The COFHE study showed little variability in the average age of retirement since 1981-82 at public universities, fluctuating from 64.2 in AY 1982 to 64.8 in AY 1986. In contrast, the average retirement age for COFHE members, all private, shifted from 64.6 in AY 1982 to 60.0 in AY 1986. The COFHE results reinforce the hypothesis suggested earlier, that factors other than mandatory retirement laws (e.g., retirement benefits) may be more critical in influencing retirement decisions. Experiences in other employment sectors, discussed below, may shed additional light on this issue.

A second study (Connellan, 1987) utilized data from the 1984 Carnegie Corporation survey of faculty to project faculty retirements through the year 2010. The author concludes that "(t)he retirement rate — assuming all other things being equal — will double over the next two decades" (p.5); the heaviest retirements are anticipated to begin in the second half of the 1990s. Among the factors to be considered, the author suggests, is a reexamination of the incentive options for early retirement which have been instituted at many colleges and universities as a means to encourage faculty retirements. National studies reveal that anywhere from 21 percent to 55 percent of the reporting institutions currently provide formal programs encouraging faculty retirements prior to a normally expected age of retirement (Chronister and Kepple, 1987). A higher proportion of public universities seems to offer such programs, while private liberal arts colleges are resorting to retirement incentives in smaller proportions (Chronister and Trainer, 1985; Kepple, 1984; and Mortimer, Bagshaw, and Masland, 1985). Yet, even as such programs seem to be gaining in popularity, changes in the federal tax code are imposing restrictions on some of the incentives offered (Mangan, 1987). For example, "buy out" programs that deposited a lump-sum payment into a tax-deferred account can no longer receive tax-deferred status under the revised federal tax structure. The viability and utility of incentive programs for early retirement may ultimately be determined in the courts, to which both individuals and groups excluded from various programs have turned to seek access to the special incentive provisions.

IMPACT OF ADEA CHANGES IN OTHER EMPLOYMENT SECTORS

The few studies carried out to date are in agreement: colleges and universities are likely to face dramatic faculty staffing problems in the near future. This preliminary analysis assumes, however, that the legislative changes in the ADEA will have at most a marginal impact on retirement trends. How reasonable is this assumption?

The impact of ADEA changes on the work force in general, as opposed to faculty, has been studied fairly extensively. (Recall that the 1978 ADEA
amendments raised the allowable age for mandated retirement from 65 to 70 for most sectors, and in the 1986 amendments the age 70 ceiling was virtually eliminated). Several such studies agree that mandatory retirement legislation is only one, and perhaps the least significant, aspect of retirement decisions.

For example, Burkhauser and Quinn (1983) built an economic model estimating the effect of various factors on retirement decisions, focusing on the effect of the 1978 change in retirement legislation. Using a ten-year Social Security Administration data base, they found that mandatory retirement did have an effect on retirement patterns. However, they state that "the aggregate impact of the change of the law is seen to be small" (p.355) relative to other factors such as earnings, pension income, and health.

In a related study, Quinn and Burkhauser (1983) examined the national trend toward the early retirement of American workers, and the likelihood that changing mandatory retirement legislation can in and of itself reverse this trend. Using Census data from 1950 through 1980, they found a strong tendency toward retirement at earlier ages. For example, the labor force participation rate of men aged 65 fell from 72 to 35 percent in this time period. Looking at a variety of such indicators, Quinn and Burkhauser conclude unhesitatingly that people are retiring earlier in spite of the 1978 ADEA change. They suggest that financial considerations such as Social Security incentives, as opposed to mandatory retirement constraints, are the policy considerations which are "at the heart of retirement plans" (p. 108).

Other studies also show the trend of American workers toward retirement at an earlier age. As reported in LaRock (1987), a survey of a cross-section of 105 U.S. employers with over 750,000 workers was carried out in 1978, 1983 and 1986 — in part to ascertain the effects of the 1978 ADEA amendments. Two main conclusions emerge from these data: first, "the trend toward early retirement has continued unabated from 1978 through 1986"; and second, "the existence of the protection afforded to employees by the ADEA appears to be the least significant factor in the decision of when to retire" (p.30). LaRock notes that a few workers do choose to continue working longer, but these individuals constitute a very small proportion of the active workforce. Reports LaRock, the evidence "unambiguously shows that 99.5 percent of those employed by companies with pension plans can hardly wait to leave the work force" (p. 32).

As noted in a Congressional hearing on the removal of the ADEA age ceiling cap, while the ability to continue working can be of immeasurable significance in individual cases, the numbers of older employees continuing to work seems to be of marginal importance to the overall labor force (U.S. Congress, 1986). That report also notes (according to Labor Department studies mandated by the 1978 ADEA amendments) that business adapted quite easily to the 1978 ADEA amendments, and predicts that the 1986 elimination of mandatory retirement will have no greater impact than did raising the age from 65 to 70.

INFLUENCES ON THE RETIREMENT DECISION

As already noted, significant factors in the retirement decision include the level of earnings while employed, pension income, health, and Social Security incentives. LaRock (1987) suggests that the decision to retire is generally made long before reaching age 65 and that the important determinants seem to include "health, the perceived adequacy of retirement income, the psychological need for workplace interaction, the financial status and retirement intentions of one's spouse, and the intensity of family ties" (p. 34).

Anderson, Burkhauser and Quinn (1986), analyzing ten years of Social Security Administration data, conclude that unanticipated events do have a
significant effect on retirement plans. Specifically, favorable changes in Social Security policies and deterioration of personal health tend to induce retirement, while economic recession (in this case, of the 1970s) tends to delay retirement. The Anderson, Burkhauser and Quinn paper supports a "life cycle" hypothesis about how people make work, savings and consumption decisions—i.e., current decisions and plans for the future depend on the values of relevant variables today and on current expectations about their values in the future. A full treatment of this topic is outside the scope of the present analysis; it is sufficient to note that external events such as changes in Social Security benefits and rules, recession, inflation, unemployment, and economic growth appear to alter both the retirement plans and the subsequent behavior of older American workers.

As Mark Twain said of the cat who sat on a hot stove lid, "We should be careful to get out of an experience only the wisdom that is in it." We must be cautious about using conclusions drawn from studies of the work force in toto to make predictions about the likely behavior of faculty. We must, for example, take into account factors such as a generally aging faculty and the existence of tenure policies. Also, as noted by Quinn in his testimony to Congress (U.S. Congress, 1986), the TIAA-CREF retirement system—unlike many private pension plans—is "actuarially fair" in that it does not penalize late retirements. For this reason, there may be a greater financial incentive for faculty to continue working than for other workers. Thus, it may turn out that faculty are somewhat different from the work force at large in terms of the determinants of retirement decisions.

Nonetheless, the fact remains that as far as can be determined there has been only a minimal impact of changing ADEA legislation upon the retirement patterns of the American work force as a whole. Also, these legislative changes have not noticeably slowed the long-term trend toward earlier retirement exhibited by the work force in general.

Studies such as those cited above also indicate that a wide variety of external economic factors do have a significant impact on retirement behaviors. On the one hand, this makes it difficult to confidently predict faculty retirement patterns through the year 2000 without fore-knowledge about future inflation, unemployment rates, and the like. On the other hand, again we see that whatever the impact of the 1994 ADEA change on faculty retirement patterns, it may very likely be outweighed by other forces. To that extent, at least, predictions about future faculty staffing which assume that the impact of ADEA changes will be minimal appear reasonable.

CONCLUSIONS

Forecasting academic staffing needs, like any labor market predictions is, at best, risky business. However, higher education is facing a situation in which the little information available seems to be pointing out two problems directly ahead.

First, the challenge of finding qualified, committed and able individuals to replace the many faculty who are expected to retire by the year 2000 looms large. Mortimer, Bagshaw, and Masland (1985) suggest that, "In a complex, nonprofit, goal-ambiguous, professionally oriented, labor-intensive organization, people are the most precious asset" (p.85). As the title of their monograph implies, "flexibility" in the management of academic personnel policies and procedures must be maintained in order to guide colleges and universities through a period of almost certain uncertainty.

In their earlier study (1987), the authors proposed a variety of measures that might be considered as flexible responses to anticipated increases in the
rate of faculty retirements. Since discussion of these measures is provided in the earlier study more thoroughly, they are only cited briefly here. The proposed measures include:

1. Recruiting prospective faculty from mid-career restlessness in business, government, and industry.
2. Altering the perceived notion of the appropriate "age" of retirement.
3. Monitoring faculty flow more deliberately.
4. Hiring available faculty on "mortgaged" positions or lines.
5. Implementing improved faculty development programs.
6. Devising effective means to recruit prospective faculty to academe.

Second, although the problem of increasing retirement rates is greater in terms of the proportion of faculty involved and the long term impact on the operations and quality of academe, the small proportions of faculty who work beyond age 70 to the point of significant ineffectiveness is likely to receive the greatest national publicity. Individuals and institutions will be facing difficult and painful situations in which relatively unproductive faculty may have to be "forced" into retirement. A recent working paper of Committee A on Academic Freedom and Tenure of the AAUP (1987) observes that "tenure means that a dismissal during the term of service can be effected only upon showing of incompetence or inability to perform..." (p.46). No longer will it be possible for deans, department heads, and even faculty colleagues to turn their heads on a deteriorating career. If an individual is not responsive to career development initiatives, a documentation trail will need to be established, and in some cases dismissal procedures implemented. It is incumbent upon academic administrators to be conscientious in their support and implementation of regular evaluation procedures. Faculty in general, faculty senates, and faculty associations need to exercise restraint in selecting cases in which they encourage dismissed colleagues to pursue endless recourse to grievance procedures and the judiciary for a decision reversal. It is not necessary to dwell very long on this facet of the impact of the elimination of mandatory retirement to realize the potential public notoriety likely to emerge.

In summary, based on a combined review of general labor market analyses and several preliminary studies of prospective faculty retirement trends in the absence of mandatory retirement, we argue that two quite different considerations will guide academic staffing policies and initiatives over the next 10 to 15 years. On the one hand, the 1984 uncapping of mandatory retirement will not dramatically induce vast numbers of faculty to continue their employment indefinitely; more likely will be an accelerated rate of faculty leaving by virtue of the disproportionate numbers of faculty currently in their fifties. On the other hand, the elimination of mandatory retirement will also set the stage for a few, but highly visible, cases in which effective faculty members will refuse to retire. All parties will need to develop effective, forceful, yet humane measures to deal with these few but potentially divisive circumstances.
REFERENCES


The subject of this session, Economics of Education/Labor Markets has a broad scope, encompassing a number of interrelated factors. Much interest in the future employment outlook for various occupations has been aroused by technological changes which are causing displacements of industrial employees in certain types of work and require new types of "high-tech" skills in newer types of jobs. In response to such interest, the Bureau of Labor Statistics in September 1987 published a projection of employment in different occupations in the year 2000. It shows a four percent decline in the number of college and university faculty members between 1986 and the year 2000. This is based on a projected decline in enrollment which, in large part, reflects the significantly lower annual numbers of births in the country in the fifteen years after 1965 than in the preceding fifteen years.

There are forces other than demography, however, which may also have a strong influence upon employment opportunities for people engaged in higher education tasks. We have seen only the beginning of the shift to automated production in an increasingly computerized age. The tasks which have been automated range from such relatively unsophisticated operations, such as robots who do welding in automobile production, to plants which are completely automated and turn out a finished product. Then there are in between operations, such as complex, automated switching equipment for multi-party long-distance telephone conference calls that are presented in television advertisements by the telephone companies. As such changes take place, there will be effects upon the composition of the work force and upon the life-style of large parts of the population. There will be a need for many additional, high-skilled and educated people to design, create, install, and keep the highly automated systems in working condition.

The same BLS projection to the year 2000, which shows a four percent decline, or a decline of 32,000, in college and university faculty, shows a 32 percent increase, or 444,000, in the number of engineers; a 76 percent increase of 251,000 in computer systems analysts; and a 29 percent increase of 14,000 in mathematical scientists, actuaries, and statisticians. Together, those three occupational groups would increase by about 700,000 if the projections are
correct. How many of these job slots would be filled by people who leave college and university faculties to take industry jobs at more attractive salaries than in the academy? There might be a significant desertion from the academy. In fact, the colleges and universities might have difficulty in recruiting replacements for those that make the shift. A factor which may alter the relationship between population composition and higher education is the change in immigration that the country has been experiencing and probably will continue to experience. First, we should note that from 1965 through 1976, except for one year, the annual number of immigrants per 1,000 people in the United States was between 1.5 and 1.9 per year. However, from 1977 through 1985, the comparable rate was no less than 2.1 and as high as 2.8. In 1985, the last year for which data are available, 265,000 out of a total of 570,000 immigrants came from Asia. Only 65,000 came from Europe, and 182,000 came from other countries in North America, including Canada and Mexico, and the Caribbean and Central American countries. The children of this new wave of immigrants, which has been growing in the last few decades, will add to the those seeking higher education in numbers that may not have been reckoned with adequately in the projections of college and university faculty. There will also be legalization of a few million immigrants, the former illegals, whose children will be more apt to reach college than when the household was illegal.

LABOR-MANAGEMENT TRAINING PROGRAMS

Of course, not all the new technical positions in industry will require Ph.D.'s, but many of them will require a higher degree of technical knowledge in electronics or math than employees presently possess. That is already evident, and at the same time fewer people will be needed for certain types of operations. Our industrial unions are already into such a period, and they are bargaining for job security and training. The two go together. Many people will have to be retrained and acquire new skills if they are to retain employment with a company. General Motors and Ford, for example, have agreed to train employees who are being displaced from present tasks, as a result of automation, for new work and jobs. About 50 cents per working hour is being put into a tuition assistance fund at GM. Individual workers can be aided to the extent of $2,000 per year, or a total of $5,000 over four years, for education and training, including college training if that fits.

The Communications Workers Union has reached agreements with the telephone companies, particularly AT&T, to help their members be retrained. Many are sent to a junior college for six months for training in basic math and electronics to enable them to work with sophisticated equipment. There will be more bargaining for such paid education and training assistance as time goes on. These will be enrollments which don't show up in the demographic projections.

Incidentally, the trade bill, which President Reagan apparently will veto, would authorize $1 billion for training and retraining. It also has several specific education authorizations, including $175 million for grants to school districts and state education agencies to improve math, science, foreign language, and computer instruction; $200 million for demonstration grants to improve basic skills of high school students; $81 million for demonstration matching grants to improve work site literacy; and several smaller programs. There is still a chance that the Presidential veto can be overridden — it is very close.

THE PROBLEM OF AUTOMATION

There is another element related to automation. There will be more leisure time. In some of the European countries, particularly in West Germany, a 38-hour workweek has already become standard in union agreements. Similar modest reductions in the workweek have been made in the Netherlands and in
Switzerland. As such change takes hold in the United States, there will be significant societal changes. Incidentally, we already have over 5 million involuntarily part-time workers who are paid only for the hours worked.

As automation progresses, there will also have to be a turn to more support via the government for leisure time for more people who may not work at all if the economy is to enjoy balanced, sustainable growth. Imagine, for a moment, that we had reached a stage where practically all production facilities were 100 percent automated and, relatively speaking, only a handful of people were needed to oil the machines and do the occasional repairs, and there was a much greater part of the adult population that did not work. Who would buy the product output? And, expensive machinery has to be utilized at a high rate of capacity in order to pay for itself. In other words, to come to terms with a highly automated economy, we will have to manage so that people with a lot more leisure time can still enjoy the fruits of the advanced technology. It may take the form of much greater government redistribution of income through more taxation of high income individuals and businesses and more support services, including education. If those circumstances should materialize, it could enlarge the market for programs of adult college education, perhaps along the lines of the PACE program of the Los Angeles Community College.

THE HIGHER EDUCATION EXPERIENCE

Strictly from a higher education viewpoint, the junior college can provide an opportunity for young people with parents of moderate income to attend the first two years of college at an institution within commuting distance at little cost. Those of us who attended CCNY, of which Baruch College used to be a part, can appreciate that advantage. A transfer to a four year institution to complete college and earn a bachelors degree will then pose a less onerous economic obstacle.

All in all, the junior colleges and community colleges would appear to be a growth area. As they grow, there should be opportunity for increased full-time faculty employment and more possibility for collective bargaining.

WORKER EDUCATION

Adult education for workers is also a relatively small but growing activity at four-year colleges, in some instances with political support by unions and partial tuition payments by employers. One of these is the Center for Worker Education at City College, here in New York. The Center offers 56 courses in two off-campus locations, one of them in space rented in a union hall. The English professor who directs the program (Leonard Kriegel) has said, "Our students are not just bettering themselves economically, they're fulfilling their conception of what a human being should be." Since it started in 1981, the Center has quadrupled the number of students, whose average age is 40 years, and now has 660 students. It has awarded degrees to 200 workers thus far, and is now graduating 70 to 80 a year.

Other colleges and universities with special programs that try to reach workers who never went to college and have tie-in with unions include Queens College, Wayne State, Penn State, Cornell, Minneapolis Community College, Hofstra, Empire State College, and the University of Missouri.

FACULTY SUPPLY AND DEMAND

In an article published in the faculty newspaper of Georgia State University in February of this year, the Vice President for Academic Affairs, Thomas Brewer, was quoted to the effect that there is now an oversupply of Ph.D.'s who
are looking for employment in the humanities field, which has caused people to shy away from working for a Ph.D. in the humanities. Consequently, he said, faculty positions in the humanities being vacated through resignations, non-renewals, and deaths will foster a shortage of humanities teachers so that opportunities in that field will expand by the mid-nineties. On the other hand, Brewer pointed out that Georgia State University is already suffering from shortages of faculty in accountancy, finance, computer information systems, and computer finance because persons with expertise in those disciplines often are attracted to lucrative positions in the private sector. Brewer does not place much faith in the position that the abolition of the mandatory retirement age in 1994 will create a glut of elderly faculty. He points out that up until now a person has been allowed to teach until age 70, but there are very few people who do this. In the absence of increased inflation, he doubted that many faculty would continue to teach who otherwise might choose to retire.

Whether there is a great contraction of faculty over the next ten years or a substantial shifting of people in and out of university and college teaching, there will be an increasing need for established rules and rights of the working faculty. In other words, there will be more need for union organizing.

**UNIONIZED FACULTY**

In the public universities and colleges in the 27 states in which collective bargaining legally can be carried on by the faculty, a high proportion of the faculty belongs to unions or their equivalent. The largest number is affiliated with the American Federation of Teachers of the AFL-CIO, with the National Education Association program not far behind, and a third group consisting of members of the American Association of University Professors. Significant progress in the unionization of private, higher education institutions was stopped in 1980 by a Supreme Court decision in the Yeshiva University case. The Court ruled that faculty members could not have a union to represent them because they had a voice in the school's decision-making. In a few states, however, unions at colleges and universities are specifically allowed. Following Yeshiva, a number of other private, higher education institutions lost their right to negotiate for union contracts.

Unionization at the higher education level has continued at the public universities. Recently, however, a trial examiner for the Pennsylvania Labor Relations Board, concluded that the faculty at the University of Pittsburgh, a public institution, has some limited managerial authority and cannot have a union under the state labor laws. His opinion will be either rejected or upheld by the Pennsylvania Labor Relations Board. If the trial examiner's logic is upheld by the Board, it will probably be tested in the courts. If it should be upheld, it would greatly damage labor-management cooperation at higher education institutions.

The political climate is becoming more favorable to higher education assistance, which could help sustain a high level of student enrollment. The leading candidates for presidential nominations in both parties are campaigning in favor of greater support in education. Even President Reagan's budget contains about a nine percent increase for student aid, primarily in Pell Grants and guaranteed student loans and some lesser programs. The requested total for 1989 is $8.84 billion compared with $8.11 billion in 1988.

In conclusion, there are a number of possible variations as to the future outlook for higher education faculty employment and unionization. It will be influenced by developments in the total economy, funding support for higher education, and the degree of further unionization achieved.
ISSUES IN FACULTY COMPENSATION

A. THE UNION WAGE DIFFERENTIAL

H. Kent Baker, Chairman
Dept. of Finance and Real Estate
American University

INTRODUCTION

Collective bargaining reached the campus long after it had arrived in industry, government, and public schools. In fact, 25 years ago the concept of collective bargaining was an anathema in American higher education. Yet, the academic climate during the past several decades has provided fertile ground for the growth of faculty unions.

Faculty members organize for many reasons, not the least of which is a desire to increase their levels of compensation. Those entering the academic profession believe that they should be adequately compensated for their educational background and for the services that they perform. However, some academics are painfully aware of the quip that the term "education" is sometimes defined as "training that helps one to make more money unless the person becomes an educator." In fact, a clever observer of American society once noted that "America believes in education... the average professor earns more money in a year than the professional athlete earns in a whole week."

Many issues have emerged in the wake of this growth in faculty unionism. Some of these issues concern whether academic collective bargaining has generated benefits to faculty in such areas as governance, quality of teaching and research, tenure status and security, student-faculty ratios, and academic freedom.

Although numerous non-economic benefits may be derived from collective action, many academicians have come to associate collective bargaining with economic benefits, especially salary and fringe benefits. In fact, Douglas (1985, p.3) notes:

It has often been said that faculty rarely read beyond the salary provisions of the Collective Agreement, leaving the overall terms and conditions of employment for union leaders and college officials to administer. After all, the salary clause is intended to insure equity and fairness in the recruitment and
retention of faculty and to serve as a rational approach to compensating them.

Morand and McPherson (1980) observe that one of the unanticipated outcomes of collective bargaining in higher education has been the creation of a new industry — academic studies of academic unionism. One area of particular concern has been research on the compensation issue — how unionism relates to wages and fringes. For example, researchers have addressed such issues as:

1. Do unionized faculty receive greater salaries than non-unionized faculty?
2. Does faculty compensation differ at various faculty ranks between unionized and nonunionized institutions?
3. Have junior faculty experienced greater compensation increases than senior faculty at unionized institutions?
4. Does the impact of collective bargaining on faculty compensation differ significantly among different types of institutions?

Answers to these and other questions are important because they provide empirical evidence on several theoretical reasons underlying the growth of academic collective bargaining. Such findings may be of practical value to faculty, administrators, legislators, and others concerned with refining their understanding of the relationship between collective bargaining and faculty compensation.

There are those who argue that unions have had a positive effect on faculty salaries, while others feel that the union/non-union differential has been minimal. But what does the research show? This paper reviews the empirical evidence on whether unions make a difference in achieving salary increases. The results tend to dispel several myths surrounding the impact of unionism in higher education.

ACADEMIC COLLECTIVE BARGAINING AND COMPENSATION

There are several major empirical studies on the effects of academic collective bargaining on faculty salary or compensation. This paper presents a brief overview of each of these studies, its methodology, and results.

A. BIRNBAUM

The earliest known study on faculty compensation in American higher education was conducted by Birnbaum (1974), who hypothesized that collective bargaining has had no effect on faculty compensation. In his first study, Birnbaum matched 88 pairs of union and nonunion two- and four-year institutions in an attempt to gain institutional data comparability. He found that unionized faculty had realized a $777 salary advantage over their nonunion counterparts between the academic years 1968-69 and 1972-73. However, he concluded that the rate of compensation change in union and nonunion institutions was not significantly different.

Birnbaum's second study (1976) extended the comparison to the 1974-75 academic year to determine if the earlier trend continued. He found that unionized campuses continued to pay faculty higher compensation than comparable institutions without collective bargaining. Although the difference in
compensation continued to increase, the rate of change appeared to moderate slightly. Birnbaum (1976, p. 118) concluded that "... the relationship between unionization and compensation may not be as strong as originally suggested."

B. MORGAN AND KEARNEY

Morgan and Kearney (1977) used 46 matched pairs to compare faculty compensation before unionization (1969-70) to after unionization (1974-75). They found that the average compensation in 1969-70 of institutions that did not subsequently undergo collective bargaining exceeded those that later unionized by $201. However, by 1974-75 the compensation level had changed and favored unionized institutions by an average of $625. This finding resembles the results reported by Birnbaum.

Morgan and Kearney also found that the faculty compensation gains were larger at less comprehensive unionized institutions compared with major universities. Their evidence shows that unionism yields higher compensation in private than public institutions.

Another facet of the Morgan and Kearney study was their use of multiple regression to control for variables in addition to those used in the matching process. They concluded that unionism was the most potent predictor of faculty compensation differences in the sample studied. Thus, their results clearly favor the union sector.

C. BROWN AND STONE

Brown and Stone (1977) use a design which compares unionized faculty compensation levels to regional and national compensation averages. They analyzed 45 four-year institutions before (1970-71) and after (1975-76) the start of collective bargaining by computing ratios of the average salary for each academic rank to the rank's national average salary for schools in the same category. Although they found salary advantages for unionized faculties, the magnitude of most of these advantages was not statistically significant.

Based on their analysis, Brown and Stone (1977, p. 396) conclude that "in general, there appears to be no significant impact on salary, compensation and promotions associated with the adoption of collective bargaining by college and university faculty." These findings are inconsistent with both the Birnbaum and Morgan-Kearney findings. However, Ito and Masoner (1980) report that the discrepancy in the Brown-Stone and Morgan-Kearney results can be attributed to the difference in the terminal years employed in both studies.

D. LESLIE ANDHU

Leslie and Hu (1977) extend prior research by examining a broader range of financial implications of collective bargaining. Using Birnbaum's matching technique and a modification of Morgan and Kearney's regression model, they analyzed 150 matched pairs of two- and four-year institutions in 1974-75 and 1975-76. In addition to analyzing overall trends in faculty compensation, they disaggregated the data by rank, institutional level and union agent affiliation.

Their study provided several important findings. First, unionization resulted in salary gains for several years. However, in a follow-up study, Guthrie-Morse, Leslie, and Hu (1981) provide evidence that the compensation advantage of unionized faculty declines over time. This "peaking" was not evident in previous studies because insufficient time had elapsed.
Second, senior faculty members in unionized institutions experienced greater financial gains when compared with their nonunionized counterparts. Using more recent data Guthrie-Morse, Leslie, and Hu (1981) show that the greater advantage from unionism shown by the higher ranks appears to decline with the passage of time. Their second study also provides evidence that unions do aid those at the bottom of the economic and security ladder.

Third, more comprehensive unionized institutions exhibited the larger compensation advantage. This result differs from the Morgan-Kearney finding that compensation increases are greater in the less comprehensive unionized institutions.

Fourth, both public and private unionized four-year institutions showed higher average compensation gains than their nonunionized counterparts. Furthermore, private institutions had greater gains than public institutions. This result is consistent with the Morgan-Kearney finding but not with Birnbaum.

E. MARSHALL

Marshall (1979) provides further evidence on the effects of collective bargaining on faculty salaries. Using Birnbaum's matching criteria, Marshall examined 30 pairs of institutions using 1976-77 salary data relative to a base year. However, Marshall made several refinements in her methodology compared with earlier studies. A five-year period served as the basis for comparison and the data were disaggregated based on institutional category, type of control, and faculty rank.

Marshall (1979, p. 318) concluded that "... there is little, if any, difference between salary increases at union and nonunion institutions." This conclusion corresponds to that of Brown and Stone who used a different methodology but the same time period, but differs from the findings of Birnbaum, Morgan and Kearney, and Leslie and Hu.

F. BAKER STUDY

Baker (1984a and 1984b) focused on an examination of the impact of collective bargaining on faculty compensation primarily during the 1970s. His sample consisted of 45 match pairs of union and nonunion institutions. The matching process attempted to control for five major compensation-determining variables in order to isolate the effects of unionization. Changes in faculty compensation both in dollars and percentages were tested and analyzed from the year immediately prior to six years following unionization. The data were examined by all faculty ranks combined, public and private institutions, AAUP categories, and individual academic ranks.

The basic conclusions of this research are as follows. First, the results show that prior to unionization faculty compensation levels were not unusually low for those institutions that subsequently unionized.

Second, faculty compensation at institutions with collective bargaining was significantly higher in the short-run but not in the long-run than at comparable nonunion institutions. In fact, the differences in compensation between union and nonunion institutions peaked two years following the date in which collective bargaining agreements went into effect.

Third, the impact of collective bargaining on faculty compensation did not differ significantly between public and private institutions. Unionized public two-year institutions did show significant percentage gains in compensation relative to unionized private four-year institutions in the long-run.
Fourth, the adoption of collective bargaining did not significantly change the faculty compensation structure among different types of institutions based on AAUP categories, except for Category I institutions in the long-run.

Fifth, the adoption of collective bargaining did not significantly change the compensation ranges across academic ranks with the exception of the faculty ranks below full professor in the short-run.

Sixth, interrank compensation differentials between junior and senior faculty were not significantly reduced by unionization. That is, a leveling process did not occur between junior and senior faculty ranks. In fact, the ratio between junior and senior faculty compensation both for union and nonunion institutions remained virtually constant in the short- and long-run.

Finally, less comprehensive two-year institutions demonstrated significant long-run percentage gains in compensation relative to more comprehensive four-year institutions.

The major conclusion of the study is that the impact of collective bargaining on faculty compensation is short-run in nature. An implication of this finding is that collective bargaining has had an impact on non-unionized campuses concerning salary determination. That is, institutions have been forced to raise salary levels to meet or even exceed newly established union negotiated rate or run the risk of either losing faculty to higher paying unionized institutions or giving support to union organizing drives on their own campus. Thus, the academic marketplace appears to be reasonably efficient in making compensation adjustments between union and nonunion institutions.

Baker also found that several beliefs about collective bargaining, when it was in its early stages of development, did not appear to be upheld as the union movement matured in higher education. For example, the "class interest" or "class deprivation" hypothesis, which contends that faculty with relatively low compensation tend to be the most likely to seek collective bargaining, was not supported. Also, the belief that junior faculty experience greater compensation increases than senior faculty at unionized institutions was not upheld.

CONCLUSION

What conclusions can be drawn from these studies? Although research on the relationship between academic collective bargaining and faculty compensation has produced mixed results, one noticeable trend does emerge. Strong evidence suggests that collective bargaining results in higher salary compensation in the short-run but these gains diminish over time. This conclusion is consistent with a considerable body of literature both inside and outside of higher education which shows a moderating impact of unionization on compensation over time. However, this finding does not exclude the potential effect of unions on overall faculty welfare over a longer time period in the form of other noncompensatory or nonpecuniary benefits.

There are several possible explanations for the result that unionization is associated with greater relative increases in compensation in the short-run than in the long-run. First, collective bargaining agents may be more successful during their early years of negotiating than in subsequent years. Second, the failure to unionize may in itself be a cause of higher compensation. That is, trustees, administrators, and legislators may attempt to lessen the drive toward unionization by increasing compensation or providing other economic and nonpecuniary benefits. Finally, the competitive nature of the academic marketplace may cause nonunionized institutions to increase faculty compensation.
in order to remain competitive with nonunionized institutions.

When the data on faculty compensation are disaggregated by such factors as institutional type and faculty rank, the results are mixed. The inconsistencies in the results may be attributed to several causes. Perhaps the most likely cause is the varying research methodologies that are used. Different methodologies often make direct comparisons difficult. Another potential cause is the varying time periods used to examine the impact of unionism on faculty compensation.

In conclusion, the impact of academic unions on compensation gains remains a continuing source of controversy. Additional research is needed to delineate further the relationship between academic collective bargaining and economic gains. The disparities existing among the various research studies suggest that this subject is not a dead issue.

REFERENCES


ISSUES IN FACULTY COMPENSATION

B. SALARY DISPARITIES OF WOMEN FACULTY:
PAY EQUITY ISSUES IN HIGHER EDUCATION

Christine Maitland
Higher Education Specialist
National Education Association

In the last decade, women have been hired into faculty positions in increasing numbers, but they continue to be underrepresented. Although 52 percent of the students in higher education are now women, only 27 percent of the faculty and 10 percent of the full professors are women. In addition, serious inequities exist in the hiring, promotion, tenure, and salary of women faculty nationwide. The disparities are greatest at the senior levels, but exist at entry levels as well.

The problem addressed here is not one of "comparable worth," but rather one of pay equity. Women faculty are too often faced with lower salaries which are blatant violations of the laws requiring "equal pay for equal work." Women faculty receive lower salaries for several reasons: they are less likely to be in the top ranks, they are paid lower salaries within the ranks, entry level salaries for women are oftentimes lower, and women tend to be grouped in lower paid disciplines such as education, nursing, and humanities.

THE LEGAL FRAMEWORK

The Equal Pay Act of 1963 requires employers to give all employees equal pay for equal work. The Equal Pay Act has been successful in stopping some forms of discrimination. The courts have consistently ruled that Title VII of the 1964 Civil Rights Act prohibits wage discrimination on the basis of race, color, sex, religion, or national origin. In Gunther v. the County of Washington, the U.S. Supreme Court made it clear that Title VII prohibits wage discrimination even when the jobs are not identical. While court decisions have varied on defining just what constitutes discrimination, the Supreme Court has established that pay based on gender is illegal.

THE PROBLEM

In 1981, women faculty were, on the whole, paid nearly 20 percent less than their male colleagues. In 1983, the National Center on Education Statistics reported higher pay for men in every category, ranging from $1,100 more for male instructors to nearly $4,000 more for male professors. In the academic year 1985-86, the U.S. Department of Education, Center for Education Statistics reported that the salary of male faculty continued to exceed that of women
faculty in all ranks in both public and private institutions (See Table 1). In public four-year institutions, the disparity was almost 25 percent when all ranks are combined compared with 31 percent in the private four-year institutions.

The American Association of University Professors publishes an annual report on faculty salaries. In 1975-76, the weighted average salaries of faculty by rank and sex indicated that women faculty earned 90.4 percent of male full professors, 95.2 percent of male associates, and 93.7 percent of male assistants. In 1984-85, the gap had widened and women received 88.1 percent of male full professors pay, 92.9 percent of male associate professors pay, and 91.9 percent of male assistant professors pay. The 1985-86 report indicates the salary differentials continue.

Recent studies conducted in California, Pennsylvania, Virginia, and Illinois also indicate pay inequity problems. In 1987, Justus, Freitag, and Parker compared the University of California with research institutions nationwide and concluded that women faculty tend to be grouped in the lower ranks and temporary positions and are working at less prestigious community colleges, women's colleges, and small liberal arts colleges rather than in major research institutions. When they teach, women are paid less, receive tenure at lower rates, and rise through the academic ranks at a slower pace.

Another study conducted in 1987 in the Pennsylvania State University system reached similar conclusions. The study compared the faculty distribution by gender and rank for the leading public research institutions nationwide (see Table 2). A comparison of all the institutions indicates that women comprised 18.3 percent of the faculty but less than eight percent were full professors (7.4%), compared with 52 percent in the temporary instructor ranks. The study concluded:

Women are underrepresented in the upper ranks of the faculty in part because they are more concentrated in nontenure-track positions than their male colleagues and in part because they are less likely to be tenured and promoted when they are on the tenure track.

In October 1986 at Pennsylvania State, only 38 percent of the women held tenure-track positions compared with 78 percent of the male faculty and, as a result, only 11.8 percent of the tenure-track faculty were women. The differences in rank of men and women faculty contributed to gender differences in salaries, and, in addition, there were also faculty differences in pay which were not attributable to rank, department, and other such factors.

The University of Virginia also conducted a study on the status of women. In the fall 1986, women comprised 22 percent of all faculty, but only 7.7 percent of the tenured faculty. With the exception of nursing and education, women comprised no more than 6.5 percent of the tenured faculty at any school at the University. The study found that the salaries of female faculty were "noticeably lower than those of their male counterparts" in 34 of 68 categories.

These findings are consistent with this author's review of EEOC reports filed by Southern Illinois University, Carbondale for 1985-86. Out of a total faculty of almost 1200, the women comprised 7.5 percent of the full professors (18 women), 13 percent of the associate, and 34 percent of the assistant professor ranks, compared to the lecturer ranks which were 48 percent female. There is also evidence of pay inequities at SIU, Carbondale. Data from the university's Institution Research and Studies Division indicate the overall average salary of male faculty members was $3,801 per month compared to $2,872 for
## Table 1

### Faculty Salaries: Men's Pay Exceeds Women's

Average Salaries and Difference, by Level and Sex, and by Control and Academic Rank, 1985-86

<table>
<thead>
<tr>
<th>Control and academic rank</th>
<th>4-year</th>
<th></th>
<th>2-year</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Percent Difference</td>
<td>Men</td>
</tr>
<tr>
<td><strong>Public</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All ranks combined</td>
<td>$35,800</td>
<td>$26,700</td>
<td>24.8</td>
<td>$36,800</td>
</tr>
<tr>
<td>Professor</td>
<td>43,400</td>
<td>34,200</td>
<td>8.0</td>
<td>43,200</td>
</tr>
<tr>
<td>Associate professor</td>
<td>33,000</td>
<td>21,500</td>
<td>4.7</td>
<td>31,200</td>
</tr>
<tr>
<td>Assistant professor</td>
<td>27,800</td>
<td>25,600</td>
<td>7.7</td>
<td>26,800</td>
</tr>
<tr>
<td>Instructor</td>
<td>21,600</td>
<td>20,300</td>
<td>6.6</td>
<td>23,700</td>
</tr>
<tr>
<td>Lecturer</td>
<td>25,200</td>
<td>22,400</td>
<td>12.4</td>
<td>25,200</td>
</tr>
<tr>
<td>No academic rank</td>
<td>26,600</td>
<td>22,900</td>
<td>16.1</td>
<td>30,800</td>
</tr>
<tr>
<td><strong>Private</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All ranks combined</td>
<td>33,900</td>
<td>25,900</td>
<td>30.9</td>
<td>20,400</td>
</tr>
<tr>
<td>Professor</td>
<td>43,000</td>
<td>36,300</td>
<td>18.4</td>
<td>25,100</td>
</tr>
<tr>
<td>Associate professor</td>
<td>31,200</td>
<td>28,500</td>
<td>9.5</td>
<td>22,400</td>
</tr>
<tr>
<td>Assistant professor</td>
<td>25,900</td>
<td>23,500</td>
<td>10.5</td>
<td>19,900</td>
</tr>
<tr>
<td>Instructor</td>
<td>20,100</td>
<td>19,000</td>
<td>5.8</td>
<td>17,000</td>
</tr>
<tr>
<td>Lecturer</td>
<td>25,300</td>
<td>21,700</td>
<td>16.5</td>
<td>*</td>
</tr>
<tr>
<td>No academic rank</td>
<td>24,600</td>
<td>21,300</td>
<td>15.4</td>
<td>19,500</td>
</tr>
</tbody>
</table>


*Number of faculty reported in this category too small to yield reliable data.*
Table 2
Faculty Distribution by Gender and Rank*
University Park vs. Leading Public Universities (Main Campuses)
1985-1986

### PERCENT FEMALE ###

<table>
<thead>
<tr>
<th>Institution</th>
<th>All Ranks</th>
<th>Prof</th>
<th>Assoc</th>
<th>Asst</th>
<th>Instr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. of 10 Top</td>
<td>18.3</td>
<td></td>
<td>21.9</td>
<td>31.6</td>
<td>52.3</td>
</tr>
<tr>
<td>Public Univ.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penn State</td>
<td>17.4</td>
<td>6.1</td>
<td>10.5</td>
<td>25.0</td>
<td>50.8</td>
</tr>
<tr>
<td></td>
<td>(8)</td>
<td>(10)</td>
<td>(11)</td>
<td>(10)</td>
<td>(5)</td>
</tr>
<tr>
<td>UC-Berkeley</td>
<td>16.0</td>
<td>6.7</td>
<td>21.0</td>
<td>31.0</td>
<td>49.2</td>
</tr>
<tr>
<td></td>
<td>(10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UC-Los Angeles</td>
<td>19.2</td>
<td>8.5</td>
<td>19.0</td>
<td>32.0</td>
<td>53.2</td>
</tr>
<tr>
<td></td>
<td>(11)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Univ Illinois</td>
<td>12.8</td>
<td>6.3</td>
<td>16.0</td>
<td>23.8</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>(10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indiana Univ</td>
<td>20.1</td>
<td>8.1</td>
<td>24.2</td>
<td>37.1</td>
<td>43.5</td>
</tr>
<tr>
<td></td>
<td>(11)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Univ Michigan</td>
<td>19.6</td>
<td>7.9</td>
<td>22.5</td>
<td>29.1</td>
<td>67.3</td>
</tr>
<tr>
<td></td>
<td>(10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Univ Minnesota</td>
<td>19.9</td>
<td>7.6</td>
<td>25.6</td>
<td>40.8</td>
<td>72.7</td>
</tr>
<tr>
<td></td>
<td>(11)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Carolina</td>
<td>20.4</td>
<td>6.8</td>
<td>28.6</td>
<td>31.9</td>
<td>45.9</td>
</tr>
<tr>
<td></td>
<td>(10)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Univ of Texas</td>
<td>19.0</td>
<td>6.4</td>
<td>24.2</td>
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<td>38.8</td>
</tr>
<tr>
<td></td>
<td>(10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Univ Virginia</td>
<td>16.0</td>
<td>5.1</td>
<td>12.8</td>
<td>27.8</td>
<td>45.6</td>
</tr>
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<td></td>
<td>(10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Univ Wisconsin</td>
<td>19.4</td>
<td>9.7</td>
<td>29.9</td>
<td>32.8</td>
<td>69.6</td>
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</tbody>
</table>

*includes all full-time, 9-month faculty (standing and fixed term I)

Source: HEGIS Salaries, Tenure, and Fringe Benefits of Full-Time Instructional Faculty
women. This gap can be explained, in part, by the fact that women are in the lower ranks. However, a comparative analysis of pay by rank also indicates lower salaries for women faculty. Female full professors are paid nine percent less than male full professors; female associates receive almost 9.6 percent less, female assistant professors receive 9.2 percent less, and female lecturers receive almost 9.3 percent less than male lecturers.

The examples discussed above indicate that gross salary differentials exist within the ranks. However, they do not take into account differences in discipline, education, years of service, and performance. The question is — when all these factors are taken into account are there still gender differences in rank and salary? One way to determine this is to analyze salaries using a regression model with gender as the independent variable. When variables such as education, experience, years of service, discipline, publications, and the like are entered into the equation it is possible to predict what determines salary levels. Bognanno concluded that virtually all studies conducted using regression analysis have found that earning decisions are partially based on gender. The regression analysis predicts what the earnings of women would be if they were paid in the same way as men. "The differences between this predicted value and the women's actual pay measures the extent to which women are paid less than men with identical characteristics." The AAUP published a salary evaluation kit with a detailed explanation of how to run a regression study of faculty salaries.

WOMEN AS PART-TIME AND TEMPORARY FACULTY

The numbers of part-time temporary positions increased dramatically during the decade of the seventies and into the late eighties. In 1984, it is estimated that the full- and part-time temporary faculty (not including graduate teaching assistants) occupied 35 percent of the faculty positions nationwide and had increased by 22 percent since 1970. Temporary faculty receive less pay than their tenured counterparts and they seldom receive fringe benefits or retirement.

Tuckman, et al conducted a nationwide study of temporary faculty and concluded that most part-time faculty are male (61%). However, males tend to be grouped among the two-thirds that have full-time positions and moonlight as teachers. Among those who desired full-time positions, 52% were female, and those who chose part-time teaching because of family responsibilities were overwhelmingly female (97%). The Tuckman study was conducted in 1976 and recent data indicates increasing numbers of women in temporary ranks.

In 1981, Yang and Zak surveyed part-time faculty in public and private four- and two-year institutions in Ohio. Those who held other full-time positions were predominantly male. The majority of females (72%) either taught only part-time or held a second part-time position compared to a small portion of male faculty (2%) (reported in Wallace). Yang and Zak (1981) also assessed job satisfaction among part-time faculty and isolated factors that proved significant in predicting job satisfaction. They found that part-time faculty seeking full-time employment expressed more job dissatisfaction than others, part-timers in the arts and humanities were less satisfied than those in other fields; those for whom part-time teaching was their only job were less satisfied than those employed elsewhere; women teaching part-time were less satisfied. Part-timers tended to be more satisfied with part-time teaching if they had other employment or if they were teaching part-time in business or education.

Universities hire a large numbers of women for freshman composition and writing programs. Business and humanities hire the largest numbers of part-time
faculty, with English being the subject that uses the highest number. Wallace concludes that the research confirms "that part-time teaching in English (and frequently also in foreign languages) is primarily a women's issue." The Pennsylvania study also found that the university employed almost 3,700 part-time faculty. Of this group, 80 percent were classified as casual employees working less than 50 percent. "Many of these individuals were highly skilled, career-oriented members of the University workforce who make a significant and long-term contribution to Pennsylvania State." Yet, they were not provided benefits and were paid at lower rates than full-time faculty performing the same work. A majority of the part-time faculty were women (58 percent).

It is possible that pay discrimination could be charged in affirmative action lawsuits since it is illegal to channel women into low-paid positions. If it could be proved that women are systematically appointed to low-paid, part-time positions, especially if their credentials and duties are similar, there might be a strong legal case.

**STRATEGIES TO ACHIEVE PAY EQUITY**

The first step to achieve pay equity is to document that pay inequities exist. The academic unions have used different approaches and strategies. In some institutions, NEA members with collective bargaining contracts have succeeded in securing equity raises through legally binding negotiations.

As an example of what can be bargained, the NEA affiliate at Youngstown University in Ohio secured a contract provision requiring salary equity adjustments which raised women's salaries overall by more than 25 percent.

At Keene State College in New Hampshire, the NEA affiliate recently ratified a two-year agreement which contains pay equity provisions. A pool of funds is established to be used for inequities identified as part of an annual sex equity regression analysis.

The contract for the Massachusetts State University also includes provisions for pay equity. Prior to bargaining the provision, the NEA affiliate filed a series of pay discrimination lawsuits (see below). The contract has provisions to use two percent of the annual salary pool over a three-year period to establish pay equity. The equity adjustments are based on a regression analysis of salaries that include years of experience, education, degrees, relevant experience, and seniority.

The AAUP affiliate at the University of Nebraska, Omaha completed a new agreement in 1988 that includes provisions for one percent of the salary pool be used to address gender salary differentials. In 1988 at the University of Connecticut, the AAUP affiliate negotiated a pay equity plan after a state funded study found that female professors earned an average of $10,000 less than male professors at the university's seven campuses. Under the plan, female professors will receive an average of $1700 raises over the next two years.

In some states, coalitions of NEA state affiliates and other employee groups have lobbied state legislatures to pass laws establishing pay equity policies, or to fund data collection and job evaluation studies. And, in several other states, where other strategies have failed and there is evidence that gender was a factor in setting wages, NEA affiliates have taken legal action to sue employers for sex-based wage discrimination.

At the University of Minnesota, librarians won nearly $1 million in settlement of an NEA sex discrimination case. Women faculty also received back
pay and compensatory damages averaging up to $40,000 to settle pay discrimination claims. These settlements were a result of the Rajender sex discrimination case filed in 1973, after Rajender, a female faculty member was denied tenure in the chemistry department. She sued the university and after seven years the case was settled out of court. Included in the settlement was a consent decree providing an expedited procedure for sex discrimination cases. As a result, the NEA affiliate filed a series of cases for librarians and faculty claiming damages under the Rajender decision.

In 1986 at the Massachusetts State Colleges, NEA won a salary equity case on behalf of female faculty and librarians. An estimated 400 female faculty and librarians employed in the system shared in the settlement of back pay and salary increases. The First United States District Court in Boston rendered a major decision with broad implications for faculty pay equity cases. The evidence presented by the NEA was largely statistical utilizing linear regression equations to establish evidence of salary discrimination. A similar suit is pending in the Massachusetts Community College System.

A LOOK AHEAD

Colleges and universities need not wait for lawsuits or collective bargaining to correct pay inequities. Lawsuits are expensive and time consuming and back pay liabilities can be very costly. Institutions could immediately improve the status and numbers of women faculty by promoting qualified women who are currently in temporary positions and in the lower ranks. In addition, they should invest in programs to recruit from among women teaching in other segments of education just as they invest in programs to recruit and support athletes. Colleges could identify faculty with good teaching records who lack the educational background to qualify for university positions and provide financial assistance to assist them in obtaining advanced degrees. Others need financial assistance for research and publication in order to qualify for promotions. The California study contained extensive discussion about successful programs for hiring and retaining women. Early identification of undergraduate and graduate students with a potential for academic careers combined with opportunities to do research while in college and financial support at each stage of the undergraduate and graduate work. The support should be combined with training in research, scholarship, and teaching. Probationary faculty need to be fully informed about the expectations for tenure, have reduced teaching and committee loads, and access to colleges in the field. Shavlik, et al concluded that "inequities need to be addressed and corrective action taken on every campus", because students need access to "numerous women including women of color who have achieved, not just a few. The behavior, attitudes, and styles of one group — currently, majority males — should not dominate higher education as a whole." The report also contained recommendations for improving the status of women.

It is not enough for institutions to hire women, they must also insure equitable treatment in salaries as well as opportunities for tenure and promotion.


5. The Pennsylvania State University, Report to the President and the Commission for Women, 1988.


12. Ibid.


14. Ibid.

15. The Pennsylvania State University, Report to President.


ISSUES IN FACULTY COMPENSATION

C. FACULTY SALARY DATA BASES:
THE UNIVERSITY OF NEW HAMPSHIRE MODEL

Gary Wulf, Vice Chancellor for
Resource Administration
University System of New Hampshire

You have to understand a little bit about New Hampshire in order to understand the presentation. New Hampshire is in the woods, we eat mostly nuts and berries, it is a relatively poor place and we have no taxes. We will probably never have any taxes. We have the second largest legislative body in the world, almost all volunteers who get $50 a year for serving. That is why we have no taxes. Most of those people are retired, or self-sufficient. The University System in New Hampshire has always prided itself on being the least supported public higher education system in the United States. We get less outside support than most private institutions receive. So I am able to stand up here and really speak to you regardless of where you are from and be one of you. I know many of you are getting poorer and poorer which is more like us. Welcome to the group. It is a lot of fun. Some of the things that we had to do years ago, you may have to do now.

Our Faculty Salary Database went into existence about a decade ago. We went into that process well aware that faculty salaries were traditionally looked at by rank and discipline. If we did not already know that, our friends from the NEA told us that. The AAUP had told us that long before. We have been through, then, a process of about ten years of improving a basic concept.

I do not pretend to be a statistician. I am the father of this process but lean very heavily on people who know what they are doing to keep it going and growing and changing. I am primarily a user of the idea that I asked for ten years ago.

The basic concept of the Faculty Salary Database is that every faculty member in the University System in New Hampshire, which includes a land-grant university, two state colleges, a two-year commuter institution, a two-year resident institution, and an institution without walls is coded on the basis of what used to be called the Hejus Code, although now you have to walk through a taxonomy to get to something that becomes harder and harder to figure out. Each of the faculty members is assigned to the most appropriate discipline. That is done by the academic officers who are directly responsible for that department or division or college and not by personnel. They have the ability to change that any time that somebody's speciality happens to change. They pick the closest match they can to the actual discipline for that faculty member. Understand, because we are the smallest university system in the country, that
is not an overwhelming job for us. We are talking about a thousand plus faculty. It is manageable. Once you have determined those positions and added tenure, things do not change very often. That person is with you four or five decades. Their discipline and assignments are more or less constant.

The assignment is our cue with regards to the kinds of information we need to determine the market value for that particular position. In the old days, prior to 1976-77, we were absolutely enamored with across-the-board increases. The AAUP data looked at class of institution and average salary nationally by rank. Unfortunately, when we looked beyond that, we really were not paying the French professor the same thing we were paying the physics professor. When we lost a faculty member and went out to look for a new one, that national average for all assistant professors did not work very well. We did not have any more luck using that across-the-board approach for national recruitment with the faculty than we did with our professional employees. We had to get precise with regards to the market value for both groups because our money was very tight. We wanted to recruit and be able to get people to show up when we ran an ad or went to a meeting and said we have a position. We did not want to have to pay more than we should for something. We wanted to optimize the use of our funds. That was the driving force, the optimization of scarce resources, that really took us where we were going.

We then went through a period of years in which we collected data. Thank heavens that Oklahoma State University started a survey several years ago for land grant colleges and very large institutions that keyed on rank and discipline. After that CUPA, working with Carnegie Mellon and Oklahoma State University, was able to embrace the American Association of State Colleges and Universities data. After that, they added private colleges and universities. You have three groups from which you were able to get global kinds of information based on discipline. That in and of itself still was not good enough with the array of institutions we have. We had to end up factoring two-year institutional data in order to make it work. There is not anything globally available for two-year community colleges by discipline. We, however, were not operating in that same mode. We had to do some factoring and formula work in order to come up with a realistic dollar value equated to the national market for those faculty and those two-year institutions.

Since we started to put the information out, we have been getting questions like; "So what. So you're doing this. What does it matter?" The faculty stated "We're still not making any money. We're never going to make any money. This is all very disheartening to see that we are 31% behind the market in our rank and discipline." What we did, on the basis of year to year, was to dedicate a portion of our wage and salary guideline to what we called "market equity". Those "market equity" dollars were really pulled out of the package and handed to the chief academic officers as a particular pool that they could use to address the deficiencies. We did not raise the overall dollars but we side-tracked a portion of that to look at "market equity". Over the period of ten years, (excluding the last three for a purpose to be discussed momentarily) if you take the national average percentage increase for all faculty, which is a statistic we can all get a hold of on an annual basis, the University System of New Hampshire ended up gaining about 1.2% on our salary deficiencies for faculty. This was a raw number. We took deficiencies by rank and discipline and struck a weighted average to determine overall deficiency. We ended up gaining almost 17% on our deficiencies by rank and discipline over a period of time; however, we only gained 1.2% nationally. How is that possible? It is possible because obviously you are putting your dollars into the priority areas. Where you are off the market, if you are even with the market or ahead of the market they get less emphasis, you are simply reallocating your dollars internally.
The minute this data was available, when a department or a dean or an academic vice president had a vacancy, he or she did not immediately look in the Chronicle and see what numbers they might be able to come up with or listen to the department chair whine and figure out that they had to pay him $35,000. They basically would go to the salary survey database and say, "What is the national average for a new assistant professor in physics? There is the number. I'll try that." They cued in on actual numbers. Obviously, there is a pretty good disparity in those numbers from one discipline to another. The disparities that existed ten years ago are nothing compared to the disparities that exist today. Those numbers have grown further and further apart because of supply and demand.

We no longer vie amongst ourselves for those hard to recruit faculty. We now are competing with the private sector and plenty of other places for exactly those same people. People who do not want to be a professor any more can go someplace else and sell what it is they do. That has had a disparate kind of an effect on the data and the overall average salaries within our faculty.

We were fortunate enough to get an ex-full professor as a governor. He basically said to us, "I hear your faculty whining, bitching, and moaning about how badly they are paid. I whined and bitched and moaned myself." He came from a poor place called Tufts. He said, "I would really help you, if you can put a handle on just what it is you need to get at those particular areas of the faculty where you have dramatic deficiencies. I can give you extra money." It took us less than 24 hours to hand in the number. We ran it right off our database. We went in and gave him a figure. He was amazed. He wanted the backup information. He was a physicist, I believe. More familiar and more comfortable with numbers than I am. We went through all the backup. He said, "Hey, I'm convinced. This is a good process. I will give you an extra $1,300,000 over three years to address faculty deficiencies by rank and discipline." We got a nest egg that was not simply reallocating, it was additional money. In the last three years, we have really put a dent in those deficiencies. We gave money to the individual academic administrators with a list saying, "Here is the most deficient. Here is the next most, etc., etc." We asked them to use that as a tool to distribute the dollars.

For our unionized faculty at Keene State, it was a little more complicated. We cannot simply say to them, "Here is the money. And here is how you are going to spend it." What we said was, "Here is the money if you want it. If you do not want to spend it that way, you do not get it." We also said, "However, we realize, on the basis of good faith, that you represent these faculty and we will do it by committee; three of yours, three of ours. We will provide resources. You can get your own resources, and the committee will distribute them." I was very pleasantly surprised. The single unionized faculty in our system did the most legitimate job over the three years of distributing the dollars. They did it by a three-three committee and got the most mileage out of those dollars. They zeroed in, closer than anybody, on deficiencies by rank and discipline.

We have done a few other magical things. When we opened up the file, we said to the faculty themselves, some of whom were not happy about their particular percentages, "If you do not like the numbers, we will give you the numbers. We will give you the surveys. You can look at the data. If you have something you can get your hands on that is more appropriate, more reliable and valid in your opinion, we will add it." We have added over twenty surveys to the database since we opened it up. These include national surveys from various associations and groups. The faculty themselves have come forward and said, "Here is data. Look at it. Would you use it?" Every year we have added a great
number of surveys. The math, science and business faculty are the most aware of the existence and use of the database.

We have an ability within the programming of the database to take every single survey that is in the file and update it on a month-by-month basis when we pull the deficiencies on rank and discipline. We take the previous year's percentage of change for that particular rank and discipline, and on a straight line projection we use that percentage divided by twelve to bring that survey data into sync with all the other surveys. By doing this, we erase one of the greatest inconsistencies that exist in survey work, delay in the reporting, printing and in the use of the information. So for us, it is the best number we can possibly get. We think that is a nice little wrinkle.

Another problem we have been able to address is possible discrimination cases, nonequal pay for equal kinds of effort within their faculties. They have a class of 1976, a class of 1977. They take the faculty within the various years and they show a male-female percentage to the fourth decimal as to how far those individual's are off the average for that particular rank and discipline. Because they can do that by gender, immediately if there is a disparity with regard to male-female within that grouping, it pops right out at them. Then they have to go and look further as to the reason for that difference.

We have done regression analysis on two of our campuses, UNH and Keene State, who are the primary users of the database. They did it with, I think, relatively mediocre results. There were not a lot of glaring disparities when they were done. Some of the factors that were available for regression analysis they scrapped along the way because of the tremendous deviations encountered because of small numbers of faculty in the various ranks and disciplines. They just were not reliable predictors on the basis of their use. On the male-female comparison it has been very useful to identify potential or possible cases of discrimination.

There is another neat number within the survey. We do an overall faculty salary number by institution. Then, we have a variance by discipline and rank from that overall average. You can see at a glance what the English professor, computer scientist, physicist, etc, makes versus the overall institutional average versus the national. You know what variance there is from that faculty who is the furthest off the overall average to that on the bottom end to the top end. So if, in fact, you are looking at salaries on a offering basis that vary by $10,000 or $15,000, it is easy to see whether or not that ten or fifteen thousand is supported by the data that is in the file, because you have that deviation that is apparent to you with regards to those ranks and disciplines.

This is a fun business. It gives you a whole new dimension and a tremendous ability to manage scarce resources. I think what does my heart more good than anything is that not everybody ends up being in a position of being deficient. You address your deficiencies and people who were not at the top of the list last year work their way up. You eventually get to everybody and to the point that everybody is paid on the average or better. It is not like it is never going to be your turn because you happen to be in a discipline that today is not on the top of the list.

The other thing that was a lot of fun was that many in the faculty who were saying, "I am in a discipline that does not have a private sector. I am in a liberal arts discipline or, I am in this particular area and I know that I am never going to get any attention." When we ran the deficiency listing and started coming up with those areas, ranks and disciplines that were the most deficient, some of those myths and some of those assumptions were dispelled. A lot of those people who assumed they would never be at the top of the list were the
very first ones to get the funds because those deans, department chairs and vice presidents, for years, had simply said, "Hey, we do not have to pay them any money because there are a lot of them out there." Year after year, they did not pay them any money. When you finally looked at those averages, especially as compared to the senior faculty, those people really had numbers to support their case. It got to the right people in the right places.

I would encourage you, if you are not already doing it, to begin the process. It is a certain degree of tedium. It does take a lot of time to keep the thing up. We on the administrative side are not any better heeled than anybody on the academic side. I do this with basically 25% of a business position, have one professional employee who probably spends about 10% of her time annually on this process and have a data analyst who is responsible for the survey work who spends about 15% of her time a year. My wage and salary administrator pops in and out of the survey work only once a year and spends about two to three weeks concentrated on this effort, or another 10%. If you have 35% of a mixed position and a thousand faculty or less, you can make it work. You can also make it work because I will give you a lot of the stuff you need to get started and you do not have to go by trial and error to get there. I wish you well.
INDEX OF FY1987 USNH FACULTY SALARY SURVEY REPORTS
AND RELATED INFORMATION

FACPRI  USNH faculty salary deficiencies, by rank and discipline.

HEGIS  All Hegis codes currently assigned to USNH faculty and faculty librarians positions; one report is sorted by HEGIS code number (Hegis); one by HEGIS code name (Alpha).

FACPRT  The "raw" data coded from various survey sources; used to determine the deficiency level of a rank/discipline represented by a member of the USNH faculty. Sorted by INSTU/HEGIS code.

HEGIS4  HEGIS code assignments of USNH faculty; sorted by campus (by college/campus at UNH), by HEGIS code number, by last name of the faculty member.

HEGIS5  HEGIS code assignments for USNH faculty; sorted by campus (by college/campus at UNH), by last name of faculty the member.

HEGIS8  Simplified report of weighted deficiency levels (most deficient to least deficient) by institution and rank.

FACPRI

This report provides the "deficiencies" of USNH faculty salaries when compared to salaries of the external market. It is sorted by institution in deficiency order, then by discipline (HEGIS). The format of the report has not changed from that used in previous years. The data displayed for the campuses reflect salaries in effect as of June 1987; only full-time, permanently budgeted academic year faculty are included in this report. External survey sources generally reflect AY86-87 information (the most current data available). Deficiency information is truncated (not rounded) at the whole percent.

The following explanation should serve to illustrate the effect of using multiple survey sources and/or computing the overall deficiency based on a weighted average for all survey sources/areas (please refer to Attachment A)

CLSCD: 00170  Professor  HEGIS: 06.0301 Banking and Finance

Three survey sources were used

1 for National (SAREA = 100 is National)
2 for Regional (SAREA = 500 is Regional)

SVID: 133 - OSU
375 - Survey of Collegiate Schools of Business-AACSB
To obtain the weighted survey average of the external market, upon which we determine the overall deficiency, the average salary from each survey source is multiplied by the number of survey positions. The total of each of the three lines is then added, and the result is divided by the total number of positions surveyed. (See Attachment A for these calculations).

The result of this calculation is the overall weighted survey average (54207). To obtain the deficiency, that figure is used in the following calculation:

\[ 54207 - 50850 \text{ (USNH average salary)} = \$3357- \]

The difference is then divided by the overall survey average, and the result expressed as a percent (truncated, not rounded, to a full percent):

\[ \frac{3357-}{54207} = .0619- \text{ or } -6\% \text{ deficient} \]

This overall deficiency is shown in the column on the left-hand side of the page labelled ALL INST WITHIN SVID DEFICIENCY.

The deficiencies reflected in the third to the last column (labelled CAMPUS TO SURVEY DEFICIENCY) are those that result from the following calculation:

\[ \frac{\text{EXTERNAL SURVEY AVERAGE} - \text{USNH AVERAGE}}{\text{EXTERNAL SURVEY AVERAGE}} \]

In this instance, the USNH average salary for this rank/discipline is -4% deficient using only OSU national data, -11% deficient using OSU regional data, and -9% using the Business School regional data. The entry with the highest number of positions surveyed is also the one that shows the USNH average to be least deficient: the weighted average thus results in a lower overall deficiency than that shown for the two regional studies.
### USNH FACULTY DEFICIENCY REPORT AS OF 6/16/1987

#### 6/16/1987 USNH SALARY COMPARED TO FALL 1987 SURVEY DATA

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<th>NUMBER POSITIONS</th>
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This report lists the raw data from all of the survey sources for each rank/discipline included in the salary survey base.

The three major survey sources are:

**UNH:**  
SVID 133: 1986-87 Faculty Salary Survey by Discipline, (Institutions belonging to the National Association of State Universities and Land-Grant Colleges) Office of Institutional Research, Oklahoma State University.

**SAREA:**  
100 = National data  
500 = Regional (group III) data

**KSC/PSC:**  
SVID 302: 1986-87 National Faculty Salary Survey (by discipline and rank in State Colleges and Universities) CUPA/AASCU.

**SAREA:**  
100 = Public  
101 = Private

**UNHM & TSAS:**  
SVID 305: Same as UNH above, except that the original source data is factored using AAUP information as published in the Chronicle of Higher Education, April 8, 1987.

Additional survey sources utilized this year are:

**SVID:**

021 - Salary Survey of the Association of Research Librarians; December 1986

261 - Chemists Salary Survey - American Chemists Society; October 1986

368 - Survey of Librarian Salaries - ALA; December 1986

375 - AACSB Salary Survey - American Assembly of Collegiate Schools of Business; April 1987

376 - Survey of Economics Faculty at N.E. Land Grant Institutions; September 1984

377 - Salary Survey - American Association of Colleges of Nursing; December 1984

378 - Average Faculty Salaries at 272 Public Institutions - AASCU; May 1985

379 - Health Administration Program Faculty Salary Survey - AUPHA; June 1985
These surveys include national data (SAREA beginning 1) and regional data (SAREA beginning with 5) for UNH as well as the Thompson School and UNHM.

This report may be used to assess the current market values for a particular rank/discipline, and may also help determine an appropriate starting salary for a new faculty member.

HEGIS4 and HEGIS5

Both reports reflect those faculty included in the USNH Faculty Salary Survey Base. The assignment of a particular HEGIS code to a faculty member is supplied either by you or an appropriate staff member at your campus. These listings will also be supplied on a periodic basis throughout the year in order to provide an opportunity to further enhance the match between a specific faculty member and the assignment of a particular HEGIS code.
TECHNICAL SESSIONS: WORKPLACE ISSUES

A. DRUG TESTING

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Director of Social Services
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INTRODUCTION

Drug testing is a technique that has particular effectiveness in the treatment of substance abuse as an illness. In addition to psychotherapy and a vocational work adjustment program, drug testing can be utilized as a method of determining the drug-free status of program participants. Drug testing can also be most helpful as a measure to ascertain relapse to substance abuse. Information obtained through testing is available for use in the therapeutic aspects of the total treatment program for the participant.

It is my belief that drug testing, when it is utilized in a treatment setting for the rehabilitation of individuals with substance abuse programs, contributes to rehabilitation of substance abusers.

Another benefit that is realized when drug testing is administered by a treatment program relates to the issue of confidentiality. The results of the testing process remains in the hands of the treatment program. The treatment program is charged with removing the individual from the work placement if relapse occurs, however, the reason for the removal is not divulged. This set of circumstances is not easily and reliably replicated when drug testing occurs outside of the treatment setting.

There are a range of other concerns about drug testing that reflect both a labor point of view, as well as that of many professionals in the field of Employee Assistance Programs (EAP) that merit discussion. Speaking specifically as the Director of a Member Assistance Program (MAP) for the Health and Security Plan of District Council 37 of the American Federation of State, County and Municipal Employees, the following represents some of the major concerns of AFSCME's position in regard to the subject of drug testing.

THE AFSCME POSITION: OPPOSITION TO RANDOM DRUG TESTING

1. AFSCME strongly opposes massive and random drug testing. Such testing is viewed as illegal, violating constitutional protections from unreasonable search and seizure and other laws, as well as invasion of privacy.
2. Testing, and the adverse actions that can result from such tests can violate important collective bargaining agreements such as just cause and due process for discipline.

3. If testing does occur, it should be limited to situations in which there is reasonable suspicion that the employee is then under the influence of drugs and where there is overriding concern for the safety of the public and fellow workers.

4. Where there are clear work performance problems that have been documented, substance abuse may be a possibility that warrants further exploration through a procedure such as drug testing.

5. When drug testing does occur, clear confirmation protocols need to be agreed upon to protect against the possibility of false positives, and the level of unreliability that exists with present tests.

6. There is opposition to employers relying upon drug testing as the sole means of addressing the problem of drug abuse at the workplace.

7. Emphasis should be placed on the development and utilization of EAPs for individuals who are in need of rehabilitation, prevention and education programs available to the work force as a whole.

Other unions vary in their views on the subject of drug testing, though most have strong objections to random testing policies, and many are opposed to drug testing altogether. Most support the development and implementation of EAPs and prevention and education strategies for the work force.

THE PROBLEM OF SUBSTANCE ABUSE

A. Work Organization and Environment Implications

The overall focus on drug testing bears even closer scrutiny as the emphasis on drug testing may "mask" or obscure more basic organizational issues relating to the work environment.

First, the workplace environment, inclusive of work relationships with supervisors, labor representatives and co-workers needs to be explored in relation to the issue of substance abuse. There is a tendency to focus attention solely on the individual employee who may have a substance abuse problem rather than to look at the total work environment. For example, job conditions and work-related stress may be significant contributory factors to the abuse of alcohol and drugs. Workplace conditions may often create "toxic" workplace conditions that can facilitate alcohol and drug abuse.

We also know that the workplace is the site of a significant amount of drug trafficking so that security initiatives require attention to the removal of drugs from the workplace as a point of contact.

Individuals who have an addiction problem do require assistance, but the workplace, as a whole, also requires evaluation in terms of the physical setting, the nature and stressfulness of the work, and the support needed to create a healthy work environment — this is a complex situation requiring a comprehensive approach, rather than a focus on one element in the total question.
B. The Role of Supervisory Relationships

A further point of investigation in the work setting is the relationship of workers to supervisors. As indicated earlier in the statement of the AFSCME positions regarding drug testing, a change in work performance behavior may present evidence that an employee requires assistance, either for a drug-related problem or for any type of personal problem which is now interfering with the work role. In order to become aware of such work performance problems, the supervisor plays a key role. It is the supervisor who is charged with the responsibility to detect, confront, involve labor where appropriate, and to monitor behavior when work performance difficulties have been noted. The degree to which supervisors have not been given adequate training about their responsibilities and do not follow-up on observed work performance difficulties, results in problems for the employee and the organization as a whole. From a clinical standpoint, lack of follow-up on observed work performance problems, results in "enabling" behavior for the employee who may have a substance abuse problem.

In order to insure that supervisors handle their supervisory responsibilities adequately, the work organization has the responsibility of instituting training of supervisory staff in regards to the supervisory function, inclusive of documentation, the chain of command in regards to referral of such individuals when improvement does not result, and the role of the EAP in the referral process.

Alert supervisors and labor involvement where there is an organized work force can also play a responsible role in detecting problems within the work environment that demand managerial attention.

Two other comments about the supervisory role are in order as well. All too often, the focus of attention in relation to problems at the workplace falls upon lower echelon employees. It must be recognized that substance abuse problems effect the entire work force and work performance problems can also be detected at the higher echelon and executive level who are often removed from an effective supervisory process. Their work performance problems may go unnoticed or may be ignored. Work organizations should be challenged to find a way to review the performance of staff so that discrepancies in work performance come under close scrutiny for all employees. It follows that a well run EAP should be designed in a manner that all levels of staff feel comfortable in using the program. Confidentiality measures of such programs for example, should give the entire organization a sense of security in the event that program utilization is required. It also follows, then, that drug testing, where there is an agreement to utilize such an approach, should apply equally to all staff, including the executive levels.

The last point that I wish to make in regard to supervisory relationships relates to jobs for which supervision is not easily available or that are difficult to monitor. Jobs that require the worker to be in the field alone, without a supervisor readily present, or jobs such as the drivers of public transportation vehicles, for example, make it difficult to apply the usual supervisory model. Such positions require the attention of all the work parties to determine the best way that designated supervisory personnel can monitor work performance, given the peculiarities of the particular job at hand. In a society that finds more workers shifting the locus of work activity back to the home as opposed to a centralized work force location, exploration of new and creative supervisory models appears indicated for the future.
C. The Role of Employee Assistance Programs (EAP)

The President's Executive Order on a Drug Free Workplace, #12564, signed in September 1986 and the Drug Free America Act of 1986 both make numerous references to the importance of establishing EAP in the workplace and of the need to utilize this mechanism for referring those individuals who may be in need of treatment for substance abuse. To be specific, Section 1 of the Executive Order which addresses a Drug Free Workplace, the following is noted in relation to agency responsibilities. Each agency plan shall include:

Item (2) Employee Assistance Programs emphasizing high level direction, education, counseling, referral to rehabilitation, and coordination with available community resources;

Item (3) supervisory training to assist in identifying and addressing illegal drug use by agency employees;

Item (4) provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues.

Further, Section 5 of the Act, which addresses Personnel Actions, requires that:

(a) Agencies shall, in addition to any appropriate personnel actions, refer any employee who is found to use illegal drugs to an Employee Assistance Program for assessment, counseling, and referral for treatment or rehabilitation as appropriate.

This section goes on to indicate that agencies shall initiate disciplinary action for any employee who is found to use illegal drugs:

provided that such action is not required for an employee who voluntarily identifies himself as a user of drugs or who volunteers for drug testing, or who obtains counseling or rehabilitation through an Employee Assistance Program.

The Act contains an excellent definition of an Employee Assistance Program:

....(f) For the purposes of this order, the term 'Employee Assistance Program' means agency-based counseling programs that offer assessment, short-term counseling, and referral services to employees for a wide range of drug, alcohol, and mental health programs that affect employee job performance. Employee Assistance Programs are responsible for referring drug-using employees for rehabilitation and for monitoring employees progress while in treatment.

1. EAPs and Training

In the labor sector, we refer to Member Assistance Programs (MAPs) as the comparable model to the EAP in management sponsored programs. It is helpful to
note, briefly, something of the origin of EAPs that helps to clarify their particular appropriateness to serve work force populations with problems such as substance abuse. Many EAPs began as Occupational Alcoholism Programs in the 1950's and 1960's, in part, as a response to Federal Alcoholism legislation, returning veterans, and the strong involvement of recovering alcoholics. Today, however, most EAPs function as "Broad Brush" programs, available to employees with any personal problem. This "Broad Brush" notion facilitates EAP utilization by the work force population since EAP involvement does not necessarily translate to mean that one has an alcohol or substance abuse problem.

EAPs have another attribute that is relevant to our discussion of drug testing. They should be housed in a "neutral" position within the organizational structure, that is most EAPs do not directly report to personnel departments or, in the labor setting, to union officials. The EAP is either housed within the medical or human resources office and, in many labor organizations, within the health and welfare departments. At District Council 37, for example, the Personal Service Unit is part of the Health and Security Plan, a fund that provides services to union members due to their membership in the health plan. The organizational arrangement is critically important to the way the EAP is perceived by employees and helps to emphasize the confidential nature of the EAP.

In order to educate the work organization about the function of the EAP, all work force participants from the top down need to be oriented as to the program purpose and operating procedures. This is usually accomplished through written policy procedures that receive joint sanction in organized work sites from labor and management, and through a process of training those most likely to make referrals to the EAP. Supervisors, union representatives and shop stewards are all important elements in the total training effort and therefore can be effective, not only in the rehabilitation of the substance abuser, but of any employee with a personal problem.

Supervisors, union representatives and shop stewards, through their participation in making referrals to the EAP, constitute an important element in identifying employees with work performance problems. Denial is a key ingredient of most chemical dependence problems, so a referral based upon work performance instead of substance abuse facilitates the EAP's work in engaging the employee and breaking through the denial with observable, documented behavior.

The further strength of referrals by supervisors and shop stewards relates to the fact that they are stationed at the workplace, in the actual work environment. Their position in the workplace means they are in a unique position to develop and participate in other workplace activities that have prevention and education implications. I will comment shortly on some of the implications of their location within the workplace environment.

My comments thus far regarding the role of the supervisor and the shop steward have been in the context of supervisory referrals. Both, when properly trained and operating under a joint labor/management agreement, should be able to work together on behalf of the employee in need of help and ensure that this cooperative work behavior is of benefit to the entire work organization.

2. Voluntary Referrals

One frequently cited criticism of EAPs is that they are only effective with employees who have work performance problems, as opposed to having the capacity to intervene at an earlier stage. What goes unrecognized frequently is the voluntary referral to the EAP. With proper organizational sanction, training
and a sound confidentiality policy, employees will emerge to refer themselves to
the EAP for service.

Such referrals will include many substance abuse problems in earlier stages
of development. (I might add that it has been the experience of many EAP
professionals that the cocaine, "crack" abuser tends to seek help more readily
than was true of the alcoholic client. This was due, in part, to the rapid
progression of cocaine dependence when the "crack" form is used).

The other voluntary referrals may not seek help for a substance abuse
problem, rather, they may manifest marital, family, financial, or other problems.
Voluntary referrals may also include employees who are experiencing stress due
to the involvement of other family members with substance abuse problems.
Frequently, these referrals exhibit work performance difficulties as well. It is
important to recognize that many voluntary referrals represent early intervention
with substance abuse problems.

3. Prevention and Education

Several of the remarks in this concluding section will relate to labor
organizations, however, the prevention and education approaches identified may
have implications for other workplace organizations. Labor unions are membership
organizations. Therefore, mutual aid and self-help activities have always been
part of their total range of activities. Union members not only volunteer to work
on political campaigns, for example, but participate in a wide range of
community social service efforts, and lend their support to eradicate major social
problems. Unions have many committee structures that include rank-and-file
members on subjects such as housing, women's committees, sexual harassment and
AIDS.

Additionally, many unions have education and health and welfare
departments that not only address career and upgrading or general health
concerns but, in addition, function to educate their membership in regard to
social and health related problems. Unions, then, already have a technology in
place that can be harnessed for continued education and prevention activities in
regard to substance abuse. Some health and welfare departments also have
internal mechanisms for referring members with substance abuse problems to
their Member Assistance Programs when the member applies for short-term
disability benefits.

The Member Assistance Programs, in addition to the assessment, referral,
short-term treatment and monitoring functions, also initiate program development
activities in concert with other arms of the union organizational structure on
topics such as stress, single parenting, family problems, child care, AIDS and the
like. These programmatic efforts offer another possibility for prevention and
education activities in regard to substance abuse.

Finally, due to the existence of mutual aid groups, a self-help philosophy,
and a humanitarian desire to help fellow union members, a frequently untapped
resource is the worker who has experienced substance abuse problems, is in
recovery and, through supervised program activity, is available to assist other
members at the work site who are in need of help. District Council 37 and
several other unions are experimenting with such an approach, and a "Buddy
System" is one aspect of a total program which is in the process of development.
This approach facilitates early intervention, prevention and education strategies
at the work site, and enhances the possibility of a new partnership between the
union member (employee) and the MAP professional to address substance abuse
problems with the union organization's sanction and support.
In conclusion, my comments on drug testing are those of an EAP professional, housed in a labor union setting and are directed primarily to the use of other supports that are deemed to be more effective, comprehensive, less stigmatizing and that ultimately, engage the entire work organization, inclusive of labor and management, and involve the creative use of the Employee Assistance Program and the worker.

REFERENCE NOTES

1. Drug Free Workplace, Executive Order #12564, September 15, 1986 Section 2 (b) 2,3,4, p. 1189.
2. Ibid, Section 5 (2), (b), p. 1190.

BIBLIOGRAPHY


Drug Testing in the Workplace, The Labor Law Exchange, Number 6, AFL-CIO Lawyers.

Coordinating Committee, 1987, Washington, DC.
B. HEALTH SCREENING — THE AIDS DILEMMA

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THE GAY MEN'S HEALTH CRISIS

GMHC is the oldest and largest AIDS service organization in the world. It was started in 1982 in someone's livingroom. It has 91 employees, and a $12 million annual budget. It started the nation's first AIDS hotline. The idea was to provide information. An Education Department grew out of that which now has 40 publications, one of which I think you have, a pamphlet I wrote called "Legal Answers About AIDS". That is only one of 40, from "Women and AIDS" to "How to Use a Condom", to just about everything.

In addition to the Education Department, there's a Client Services Department. I understand that some of you are personnel directors and this may be important information for you to know. The Client Services Department provides support groups for people with AIDS. It provides support groups for their care-partners. There are groups for the newly diagnosed, groups for mothers, groups for fathers, groups for groups. I swear there is a group for everything. Over 70 volunteer therapists run those groups. GMHC, by the way, right now has 2,000 clients. We have had a lot of experience with this as, since our inception, we have served almost 15% of the national caseload of people with AIDS.

In addition to support groups, there is recreation therapy, which is very important to keep people from becoming shut ins. It is very important for people to continue living. "People with AIDS", PWA, do not like to be called AIDS victims. What I want to show you today is they are only AIDS victims when the system lets them down. They do not like to be called patients because it implies that they are in a hopeless sort of situation. They are fighting for their lives. They liked to be viewed as people who are living with AIDS. So, the really acceptable term is PWA.

In addition to the Recreation Department, there is the Financial Advocacy Department and the Legal Services Department.

What I want to do is run through the legal services that we offer and to show you how they are important to the individual. I also want you to step back because the one thing we cannot afford to be with AIDS is myopic. You have to step back, look at the big picture and not only see what is near to you but what
is far away and coming down the road. I want you to see how those issues for individuals spill out and affect everybody in this room, and society as a whole, especially, if not sexually, your pocketbook. In order to illustrate exactly what has been going on and what might happen, I will present my prediction of insurance trends, and maybe what will be the future of health care in New York State.

What happens when a person is diagnosed, not with AIDS, but with HIV infection? It is sort of a mistake to even talk about AIDS anymore. There is almost no such thing as AIDS. There is HIV infection. That means infection with the virus that is believed to cause AIDS. There are approximately 2 million people in the United States who are believed to be infected with the virus. Whenever you see 50,000-60,000 cases of AIDS, those are the ones who are bad and who have a bad HIV infection.

What happens when you are sitting in your doctors' office and you are on that crinkley white paper. It is cold, of course, and you are naked and sitting there feeling vulnerable and he walks in with a funny look on his face. He tells you that you are antibody positive. When the bottom drops out of the room what you are feeling is a total lack of control. You are losing control, not only over what is happening inside of your body, your rights also start eroding. Your social support network starts to erode and, believe me, your money also erodes, fast. Your legal rights, or the way people perceive your legal rights, go very fast. You are left feeling completely helpless. The idea in my program is I am not just going to give you a will to live, but I am going to give you some authority and control over what is going on in your life.

You might think that being the Gay Men's Health Crisis that all my clients are gay. They are not, even 30% of our employees are heterosexual. About 30% of my clients are heterosexual. Eleven percent of my clients are women. In New York City, however, that does not really reflect what is going on. Only 38% of the cases in New York City are gay or bisexual now. The rest are I.V. drug users or the heterosexual partner of an I.V. drug user. One in 61 babies are now being born antibody positive. That means one in 61 are presumably being born with HIV infection, one in 48 in the Bronx.

The reason I bring that up is because the way my program is designed is I am going to give you control over these areas. What are the areas that come up the most? Well it has been changing, because all of a sudden custody for women and reproductive rights are now big issues. Five years ago, those were not things I was thinking about. I have been doing this for six years. So that is why I will make references back to the pre-Rock Hudson days and the post-Rock Hudson days. We deliver legal services by doing wills, powers-of-attorney, medical powers-of-attorney, living wills. We handle debtor-creditor situations. We handle landlord-tenant problems. We handle discrimination, insurance and immigration, and now, more and more, custody issues.

When we make a will, what happens? Well, we are going to take some authority and control over what is going to happen. It helps persons who have AIDS to stop looking at just how the disease is affecting them and how it is going to affect the people around them. It helps them to cope with the process of what is going on. It sort of shatters their denial. But, you cannot shatter someone's denial about death unless you replace it with an incentive to protect. To my gay client, it is protect his lover. "I want my family to have the $50,000 but, I want you to be able to keep the furniture in the house and have another $50,000 for you. I want to protect you, as well." That incentive really works because many of the earlier horror stories were so terrible. In addition, when you appoint the non-family member as the executor of the will that person suddenly has standing to sue whereas, they did not before.
We have what is called a medical power-of-attorney. Under the power-of-attorney, I can delegate to another individual that which I cannot do myself. I am going on vacation for three months, I would like Joe to pay my bills for me while I am gone. I can write a power-of-attorney authorizing him to do that. By doing that, which also emulates the institution of marriage and it is also taking some authority and some control over what is happening because the sick person is saying, "I am going to give this ability to do this to the person I care about and make sure that they are there to make the medical decisions for me." Without it, they may not. They may not even get to come into the room. By giving power-of-attorney, you are taking some authority or control over what is going to happen.

The other people who have incentive to do this are my female clients, because nine times out of ten they are more concerned about their children, especially the guardianship of their children, than they are about their property. What is going to happen to the children when the husband, who may be a drug user, has just sold the color television to pay for his habit? She does not want to leave them with that man. She makes a will providing for her custody preferences. That does not mean it is going to be binding, but she is taking as much authority and control over the situation as is possible. She is expressing her intention and it will be available at a time when she is no longer around. Believe me, this sense of empowerment is very helpful to the person. People who do these things do empirically better than people who do not because they are fighting, establishing territory, fighting back and pushing out.

The next area of practice we go into is debtor-creditor. Upon diagnosis, a person's finances erode much more quickly than their immune system. Once they stop working, they usually will make applications for disability. If they have a private disability policy, great. If not, they are going to depend on social security and their federal entitlements. There is always lag time between the application for federal entitlements and when it actually becomes available. What really happens when you are paying for your AZT at a cost of $800 a month? Do we encourage these people to declare bankruptcy? Not really, because it is a long arduous process and we cannot provide that kind of service. There are two thousand clients and I now have 260 volunteer attorneys, but back in the old days, there were only ten of us. We cannot do that kind of thing for people. So, we write letters to the creditors. Basically, there is no problem because if they have no money in their suit they are judgment proof, anyway. Look at the case of students getting loans forgiven. This is happening on a bigger and bigger scale. The banks used to laugh in our faces when we would say this person has AIDS and they cannot pay because of entitlements. They are getting $500 a month and the rent is $700 a month. And they say, "Well, that does not excuse him on his application, sir." Now they have gotten so many of those letters that they have to start paying attention to the problem. That is where I want you to start to get an inkling of the numbers and the growing amounts of money that are involved here.

DISCRIMINATION

Early on, most states in the United States had laws which protected a person who had a disability against discrimination. All but a few states have laws; Delaware, Mississippi, Arizona and Puerto Rico do not. Almost everyone else does. Is AIDS a disability for the purposes of these human rights laws? Very early on New York and California said yes, it was. Other states followed until now a majority do classify it that way. Back in what I call the pre-Rock Hudson days, the target of discrimination was mainly gay, white men who were diagnosed and fired immediately. New York City and New York State both prohibit discrimination against persons with disabilities and equate AIDS as a disability so we would bring these cases. We were always successful and we always got a
settlement, reinstatement to the job with back pay or a large financial settlement for the person. Then Rock Hudson gets diagnosed and AIDS jumps from the back of everybody’s mind to the forefront with no accompanying education. That circle of discrimination expands because people are having knee-jerk reactions. Instead of five calls a month, I am getting five calls a week, sometimes a day. But, guess what—they are not gay, white men any more. Most of them are women and children. Most of them did not have AIDS. They were perceived to have AIDS for one reason or another. Case in point.

A woman calls me. She says she missed a few days work because her fiance died of AIDS. She is very upset and distraught. She goes back to work. A friend asks her what happened. She tells the friend. The next day an armed security guard escorts her off the premises and tells her not to come back until she has a negative antibody test. I call the lawyer for the other side. I say my name is Mark Senak, Gay Men’s Health Crisis. This was in the old days and we were not very well known. This is a big Park Avenue law firm, and he says, "Gay Men’s Health Crisis, what’s that?", and laughs. Well, my client got to laugh all the way to the bank. Because it is very illegal; even the perception of a disability. They were perceiving her to have a disability, and they singled her out. So, she laughed all the way to the bank. I snickered when we signed the papers just to get his goat.

Nobody laughs at us anymore. We have never lost a discrimination case. Now that is on the local scene, New York City and New York State. But I want you to keep in mind how that circle of discrimination expanded.

On a federal level, no one knew what was going to happen. There are federal laws that prohibit discrimination against a person with a handicap. Is AIDS a handicap? Nobody knows. Does federal law have jurisdiction not only over federal employees, but over any school, hospital, or facility that has federal contracts or gets federal monies?

In June of ’86, Ed Meese decides he knows. He writes a memorandum and he hands it out. He says, yes you can fire a person with AIDS. This is about the same time a woman named Jean Arline down in Florida, who has tuberculosis, a disease which, like AIDS, is communicable, gets fired. Her case goes all the way to the Supreme Court. Every special interest group, congressmen, hands in briefs. Nobody talks about tuberculosis. They all talk about AIDS. She does not have AIDS. She has tuberculosis. They all talk about AIDS. The Supreme Court reads the briefs and Meese’s memorandum and in a seven to two decision, very decisive for the Court, they said that if he still had a sales slip from law school, he might get his money back. A communicable disease could indeed be a handicap for federal purposes. The Western Circuit has also now decided that AIDS is a disability for federal purposes. So it stands to reason that the court will continue to regard it so.

The legal kind of discrimination that is going on in the area of insurance has created a lot of problems. This is the one area that effects everybody most directly in this room.

Let’s go one step further and let’s talk about HIV testing. Everybody wants a test. It really sounds like a great idea because it seems to be the only thing that there is to do. It is not the only thing to do. When they talk about AIDS testing, it’s a misnomer. There is no such thing as a test for AIDS. There is a test for the antibody to the virus that is believed to cause AIDS. It is not an entirely reliable test. When applied to a population at risk, it is generally reliable. However, if we test all women of child-age bearing age in the United States, or if we tested everyone, for every true positive we would get, we have eight to nine false positives.
Now for some statistics. There is going to be a lot of them. Two million people in the country are estimated to be antibody positive or have HIV infections. Five hundred thousand of them are in New York State, four hundred fifty-thousand are in New York City. Fifty thousand of them in New York City are women. Sixty-six percent of the women with AIDS are Black or Hispanic. Ninety-four percent of our pediatric cases are Black or Hispanic. By the year 2000, twelve years, Black women will have a zero population growth rate in New York City.

What about the other half million who do not get sick? They are going to have car accidents, have babies, get liver cancer, have heart attacks. They are going to have to need medical care but they are not going to have insurance either. So who is going to pay for that? It is you again. So what everyone should understand is that these issues you read about in the paper and say, "Oh, gee isn't it sad about discrimination. Or, let's feel sorry for this fag," or whatever, it is not that at all. You cannot afford to look that closely and just see that. You have to step back and and see the whole picture.

The thing that I knew would happen also is that they would want to start testing groups of employees. I get memos written on stationery from insurance companies sent to me anonymously by sympathetic employees and things like that. The insurance companies state, "We will no longer insure the following industries: Apparel designers, interior designers, florists, beauticians, actors, actresses, restaurant workers." Sure enough, I got two calls from restaurants looking for group insurance and could not get it. A woman who started her own apparel designing firm tried to get group insurance and was told, "We don't insure your kind of people anymore." A man starting an interior design firm had the same thing occur. Then came the call I had been waiting for. "This is Dr. so and so, I've opened a medical practice. I tried to get group health plan for my employees and I can't get one." All of a sudden, the doctors cannot get insurance. Last week, it was a nursing association. It is growing. So, not only are they testing people and rejecting them, they are not even bothering to test some of them but are rejecting them based on a guilt by association rationale.

A lot of people want to take the test. If you want to take the test, fine. Make sure you are psychologically prepared for it. If you have an employee who wants to take it make sure that he/she is prepared for it. Make sure they get pre-imposed test counts and that they go to an anonymous testing center. I had one woman and one man who went to the doctor to take the test. They got the results and found out they were negative. They applied for insurance and the insurance company said, "Wait a minute. If you took that test, you must be worried about something. We are not going to give you insurance." So go to an anonymous testing center. Issues of confidentiality are very important. If it is in your medical records, that information can be shared with your insurer.

Breaches in confidentiality can be very serious for insurance companies and personnel directors if they get a hold of that kind of information and release it. There are no statutes right now but there is a federal bill, the Kennedy bill, which provides confidentiality for HIV results. There are also four New York State bills. I work a lot with the legislature and I put a lot of work into several of the bills. For a while, I felt like I belonged to the "confidentiality of the month club." I do not know which one is going to pass but they all call for strict confidentiality of HIV test results. They impose criminal and civil penalties upon a person and/or institution that violates confidentiality, either willfully or negligently. If your employees get a hold of sensitive information they are not trained to handle and that information leaks out, you may find yourself and your institution very liable. It is something to watch out for.
You may be asking yourself, if any of you are on the conservative side, why is he up there talking about defending the virus? Don't people have rights? What about the rights of the unaffected? Well, those are the rights I am trying to protect. This is really the one instance where the public health and civil rights really join hands. Our whole national health care strategy is based on the fact that people are going to voluntarily come forward and be tested. When they are tested, they can do drug intervention therapy if their t-cells are low. They get education which may alter their behavior. At any rate, we can alter behavior and slow down the rate of transmission. That is proven; it has got a track record. Sexually transmitted disease among gay men in Los Angeles, San Francisco, and New York between 1983 and 1985, two years, dropped 85% with intervening education. Among heterosexuals, it continues to climb. The heterosexual transmission rate for AIDS is climbing in those cities. Somebody is not getting the message. People need to voluntarily come forward and be tested. If you force people to be tested, it does not work. Look at what happened in Illinois and Louisiana. They are repealing laws they passed in January for mandatory testing for a marriage license because it was such a mess. It does not work.

The traditional mode where mandatory testing did work for things like syphilis worked because the model was that you go in, you identify, and you cure. We have a missing component to the formula here. We can only get people to voluntarily come forward. That is the strategy that is enunciated by the Center for Disease Control, the NIH, and the Presidential Commission on AIDS. Now how are we going to get people to voluntarily come forward and be tested if you have someone like Ed Meese, or the insurance industry with a baseball bat there behind their back ready to knock them on their head the minute they get a test result. Even the people who have tested negative, suffer. There is a stigma to taking the test. The environment is hostile to people who take the test and our whole strategy is based on getting people to take the test. It is borne out by the fact that 80% of the hemophiliacs in this country are estimated to be antibody positive. Yet, only 30% of their spouses or sexual partners have come forth for testing. Why? Because they are afraid, not just afraid of the results but of losing their home, of loss of control, of losing their insurance and their livelihood.

What I have been trying to do for the last six years is to enhance that as well as the public health strategy. We are not protecting the rights of the virus. I do not care about the virus. We are not doing anything against the rights of the uninfected. We are trying to protect them too. You do not do it by stomping all over people.

The other issue involving confidentiality deals with what is popularly called "duty to warn". I think it is somewhat of a misnomer because what they are talking about is when you go to the doctor and get tested, and you test positive, he says, are you going to tell your sexual partner or spouse? And are you going to practice safe sex? And if you say, no, then he is going to be allowed to tell your spouse or sexual partner. I do not know that I believe that is going to happen. If you are sitting in your doctor's office and he says, "Are you going to tell your spouse and are you going to practice safe sex?" And you know if you say no, he is going to do this, what are you going to say? You're going to say, "Doc, give me a quarter, I want to run to the phone now." You are not going to leave it up to the doctor.

Politically, it is a reality that it has to be in the statutes. So they put it in. We will give a physician the right to inform a spouse or sexual partner or a known needle sharer. I do not know how you find them. I do not know if there is a ceremony you go through to become a needle sharer or maybe sewing clubs. I do not know. But the idea is duty to warn. What are you warning against? The damage has already been done. You know, you have been sleeping with this
person for ages and all of a sudden you find out they are antibody positive. You are not warning me about anything. Warning means you are going stop me from doing something bad. I have already done it. We call it duty to inform. I do not think it is going to be a practical thing that is used very often. It is a political reality. It had to be in the statutes.

I want you to back up and look at how the issues effect the person with AIDS and what they go through after their diagnosis. It is a living hell, medically, legally, politically and socially. Step back and see how that may be affecting you in the workplace, how it is going to affect your tax dollars, how it is going to affect the whole health care delivery in this city. I really do not have a lot of faith that it is going to last seven to ten years given what is coming down the pike. There are two million people that are infected now, one in sixty-one children being born antibody positive. The rate of transmission is still climbing.
TECHNICAL SESSIONS: WORKPLACE ISSUES

C. TAX REFORM AND FACULTY INCOME

Alfred Sumberg, Associate General Secretary and Director of Government Relations, AAUP

INTRODUCTION

The short title is the Tax Reform Act of 1986. The longer and more enduring title is the Internal Revenue Code of 1986. It replaces the Internal Revenue Code of 1954, as amended, which in turn replaced the Internal Revenue Code of 1939, as amended, which was the first codification of all the tax laws enacted since the ratification of the Sixteenth Amendment in 1913. While the 1986 Code was constructed out of the critiques of the earlier legislation, it was conceived in a spirit of fiery determination by the President and Congress to produce lower rates, fairness, and simplicity. Signed by the President on October 22, 1986, some provisions went into effect retroactively while others became effective on January 1, 1987, or at later dates.

For colleges and universities, the new law reflects a philosophy that differs sharply from previous tax legislation. The 1954 Code protected the tax exempt status of colleges and universities, stimulated generous tax deductible contributions of money and property, encouraged the awarding of tax free scholarships and fellowships to students, and provided employees with opportunities for tax sheltered pensions and other fringe benefits. The 1986 Code, however, equates the non-profit and profit-making sectors and converts the flexibility permitted to the non-profit sector into the rigidity imposed on the profit-making sector. Viewed as a major American industry, colleges and universities may lose their hard-won advantages of the past several decades amidst the euphoria of lower marginal rates.

FACULTY PENSION AND RETIREMENT PLANS

For faculty, the most visible change is reflected in the pension provisions of the 1986 Code. In 1942, when the nation's employers found they had to offer new or expanded fringe benefits rather than salary increases to employees as a result of wartime wage controls, Congress approved tax legislation that regulated the type of employee pension, profit-sharing, and stock bonus plans that qualified for favorable tax treatment. The 1942 law specifically imposed rigid requirements in order to prohibit discrimination under the plans in favor of officers, stockholders, and highly compensated employees. Under the 1954 Code, the qualified pension plans became known as Sec. 401(k) plans. In 1986, as the number of faculty in higher education increased, Congress approved tax legislation that established
minimal rules for the tax-deferred status of pension programs for employees of the non-profit sector, specifically the employees of school districts, independent schools, colleges, and universities. These nonqualified plans became known as Sec. 403(b) plans. The 1958 law encouraged flexibility in the development of pension plans for educational employees. As a result, it did not include the restrictive nondiscrimination provision of the 1942 law. Now in the 1986 Code the 401(k) and 403(b) plans will be subject to the same requirements. A heavily augmented nondiscrimination provision, based on the experiences of the profit-making sector since 1942, has been imposed on the non-profit sector in the belief that flexibility over the past three decades has permitted discrimination in favor of "highly compensated" K-12 teachers and college and university faculty. Implementation of the new requirements may require major restructuring of institutional pension and retirement plans.

Since enactment of the 1954 Code, pension plans have multiplied as part of a national policy to encourage adequate retirement savings. The 1954 Code and subsequent tax laws provided favored tax status to a variety of plans that encouraged employers and employees to set aside increasing percentages of income in order to assure employees an economically comfortable period of retirement. Throughout the same period, Social Security expanded and benefits increased sharply. Social Security and private pension plans were integrated in the 401(k) plans under the provisions of the same law enacted in 1942 that had established a nondiscrimination policy for contributions and benefits. The extraordinary growth of both public and private plans encouraged the momentum towards retirement and the implementation of liberal retirement policies. For some, the goal was to continue employment until the normal retirement age of 65 or the mandatory retirement age of 65 (later 70) and then to retire with the firm knowledge that there were adequate public and private sources underlying one's pension. For many others, the goal was to retire early or at least prior to age 65. Whatever the goal, tax law permitted the accumulation of substantial retirement savings which were tax deferred at the time of contribution and tax favored at the time of distribution. The accumulation was accomplished under the protection of a wide range of provisions of the 1954 Code. Employees became aware, perhaps fleetingly, of the protection afforded to defined contribution plans and defined benefit plans, salary reduction agreements, and to plans encouraged and protected under Sections 401(k), 403(b), 414(h), and 457. Those who were concerned about the safeguards watched vigilantly over Sections 401, 410, and 415. It was a brave new world for those employees of higher education institutions who had cut their teeth on protecting the tax exempt status of their institutions and organizations under Sec. 501(c)(3) and establishing the tax free status of student scholarships and fellowships and tuition remission programs under Sec. 117 (a), (b), (c), and (d). It was none of these sections of the tax law, however, that has stimulated the major reorganization of the Code. Instead, it was the extraordinary growth of individual retirement accounts (Sec. 219) in the 1980's that has led Congress to reassess the purpose of its tax policy affecting pensions.

An interesting chapter in the development of faculty pensions involves the continuing efforts of the AAUP from its earliest days to encourage the establishment of institutional pension and retirement policies. The earliest work of Committee P on Pensions and Insurance in 1918 related to the creation of new institutional policies at the same time it was participating in discussions sponsored by the Carnegie Foundation concerning the proposed creation of the Teachers Insurance and Annuity Association. Chairing the AAUP committee was Dean (later Chief Justice) Haarlan Fiske Stone of Columbia University Law School. In 1950, AAUP and the Association of American Colleges, which represented most university administrators, issued a joint statement on academic retirement policies, including provision for a system of retirement annuities. It called for "a retirement life annuity" of approximately 50% of the average salary over the last
10 years of service, if retirement is at 70, and a somewhat higher percentage if the mandatory retirement age was lower. In 1958, as a result of the extension of Social Security coverage to faculty after 1950, the two associations revised the 1950 statement and issued a statement on Academic Retirement and Insurance Programs. The new statement called for a retirement life annuity, including Social Security benefits, equivalent in purchasing power to approximately 50% of the average salary over the last 10 years of service if the retirement is at 70, and a somewhat higher percentage if the mandatory retirement age is lower. In 1969, when the statement was revised again, it called for an "after-tax retirement income", including Social Security benefits, equivalent in purchasing power to approximately 2/3 of yearly disposable income during the last few years full-time employment. In 1980, the revised joint statement included the same recommendation as provided in the 1969 statement. In 1988, the joint statement has been revised again; it retains the same recommendation for an "after-tax income" as appeared in the 1969 and 1980 statements.

Intersecting with pension policies have been retirement policies and compensation policies. The former can be described briefly. Faculty went from a mandatory retirement age of 70 in the early part of this century to age 65 when Social Security was introduced in the mid-1930's and back to age 70 in 1982 under the Age Discrimination in Employment Act of 1967. As of January 1, 1994, according to the most recent amendment of the ADEA, tenured faculty will have no mandatory retirement age. The AAUP-AAC Statement on Academic Retirement and Insurance Policies, in its several versions, included guidelines that have been incorporated into institutional retirement policies.

**FACULTY COMPENSATION**

Since the 1970's, faculty have been caught in the crossfire of general inflation and restraints in public and private budgets. From 1970-71 through 1980-81, real salaries for faculty declined by 21%. In 1980-81, real salaries increased by .3% and through 1985-86 by 8.4%. The figure for 1986-87, which will be released shortly in the AAUP's annual report on the economic status of the profession, will not be encouraging. It will show that salary increases in real terms are the lowest in the past six years and that the increase is the lowest since 1981-82. The report warns that salary increases in the near future may fall below the rate of inflation as they did in the 1970's.

During the same period, fringe benefits as a percentage of average salary increased. In 1970-71, fringe benefits were 10.0% while in 1985-86, they were 22.0%. In explaining the increase, AAUP's Committee Z on the Economic Status of the Profession said in its report for 1985-86 that the major contributors were "rising contributions for pensions and social security and, in the case of private and church-related institutions, increased tuition payments". The committee acknowledged that the increase may reflect tax-sheltering, the spread of cafeteria plans, and an increase in mandated benefits such as social security and unemployment compensation. The largest of the fringe benefits by 1985-86 were retirement, social security, and medical insurance. And so, as we review the current status of faculty income, we note that faculty salaries have increased from an average of $13,184 with 10.0% fringe benefits in 1970-71 to $33,090 with 22.0% fringe benefits in 1985-86. It would have been necessary in 1985-86 to increase real salaries by 16.1% in order to eliminate the gap caused by the decline. But real salaries rose only 2.5% in 1985-86.

The greatest volatility in the economic life of faculty revolves around compensation (salaries and fringe benefits). As large numbers of faculty with 35 years or more of service move towards retirement in the 1990's, we must be concerned about the prospects of faculty whose real compensation declined during most of their period of service and who will receive perhaps less than the
two-thirds recommended in the joint AAUP-AAC Statement and who confront an economy laden with prospective inflation or decline. Consider also the following. Social security taxes will continue to rise, marginal tax rates will undoubtedly be at their lowest over the next two years, deductions and credits of special interest to faculty will continue to disappear, and the future of such fringe benefits as health insurance will depend on the prospects of new legislation providing for broad coverage. It is clear now that placing a 2% floor on miscellaneous deductions in the 1987 taxes operates to the disadvantage of faculty who have been accustomed to deducting their professional expenses under that category. Similarly, faculty who have deducted a home office expense now find the deduction more limited. Those who deducted educational travel previously cannot do so any longer. I hope to have some information shortly concerning the impact of the changes in 1987 tax rates on faculty. But I would not hazard a guess as to the reaction of faculty completing their federal income tax forms for 1990. However, as we look at current issues, it is essential that we assess the options that confront faculty over the next two years.

TAX REFORM ACT AND FACULTY PENSIONS

At least three purposes of the Congress are clear in the new pension provisions. First, it wants to tighten restrictions on the exploding private pension system that has emerged since the enactment of the 1954 Code. With private pension plans holding an estimated $1.4 trillion in assets in 1985, Congress wants contributions to all tax sheltered pension plans, including 403(b) plans, to be used solely for pensions rather than for temporary tax sheltered savings. Second, it wants to assure that tax sheltered pension plans benefit lowly and moderately compensated employees on an equal footing with highly compensated employees. To eliminate alleged abuses, Congress has moved to toughen the restrictions on all pension plans and to create uniform nondiscrimination requirements. Third, as part of a larger effort to discourage early retirement prior to the normal retirement age of 65 and to reduce the drain of Social Security trust funds, it wants to discourage the use of the tax law as an incentive for early retirement.

EFFECTIVE JANUARY 1, 1987

1. Sec. 403(b) plans become qualified plans subject to most of the restrictions on Sec. 401(k) plans. Some requirements applied to current qualified plans will be applied to 403(b) plans immediately while others, particularly the new nondiscrimination requirements, will become effective on January 1, 1989. Fewer changes will be required for Sec. 457 plans, which are nonqualified plans established by state and local governments.

2. Maximum employee contributions to Sec. 403(b) plans will be immediately reduced but new limits on employee and employer contributions will be tied to the Consumer Price Index (CPI). Currently, three procedures determine contributions to tax sheltered plans: (1) the calculation of the employee's contribution by using current compensation, the number of years in the current plan, and previous contributions by the employer; (2) because 403(b) plans are normally defined contribution plans, the overall contributions of employees and employers are limited to the lesser of $30,000 or 25% of compensation; (3) Sec. 403(b) employees are entitled to make "catch up" contributions beyond current limits to make up for low contributions made earlier in one's career. Under the 1988 Code, the employee's contribution under a salary reduction agreement will be limited temporarily to $9,500. The new limit will be tied directly to the new $7,000 limit for 401(k) plans. When the latter rises, as a result of increases in the CPI, to $9,500, the limit for 403(b) plans will thereafter be tied to increases in the CPI. A similar situation will affect the limit on overall contributions to defined contribution plans. The $30,000 limit will be tied to the current limit on defined benefit plans. When the latter rises to $120,000, the $30,000 limit will be
tied thereafter to increases in the CPI. Furthermore, a new "catch up" contribution plan will permit an increase beyond the $9,500 limit.

3. The Individual Retirement Account (IRA) will remain available. Faculty who are covered by a pension plan will determine whether or not they are eligible to deduct their contribution to an IRA on the basis of their Adjusted Gross Income (AGI). Married taxpayers with AGI of $40,000 or less who are covered by a pension plan would be eligible for a maximum $2,000 IRA deduction. The deduction would be phased out as income rises to $50,000. A single taxpayer with AGI of $25,000 or less who is covered by a pension plan would also be eligible for the maximum IRA deduction. The deduction would be phased out as income rises to $35,000. There is no coordination between monies contributed to a 403(b) plan and monies contributed to an IRA. Employees covered by Sec. 457 plans will remain eligible for the maximum IRA deduction.

4. A new 10% surtax will be imposed on early withdrawals from tax sheltered annuities. Currently, funds invested in tax sheltered annuities are not subject to any withdrawal restrictions. Withdrawals are taxed at the same rate as other gross income. The surtax will not be imposed if: (1) the withdrawals are part of a scheduled series of periodic payments for the life or the life expectancy of the participant (or the joint lives or the joint life expectancy of the participant and the participant's beneficiary); (2) the withdrawals are distributed to an employee who has attained age 55, has separated from service, and has met the requirements for early retirement under a retirement plan that provides for early retirement at age 55; (3) the withdrawals are for medical expenses that exceed the tax deductible limits (i.e., 7.5% of AGI); (4) the withdrawals are made after the death of the employee; (5) the participant has attained the age of 59-1/2; or (6) the participant becomes disabled. The 10% surtax does not apply to amounts withdrawn from Sec. 457 plans. There may be other limited exceptions that will apply in individual cases.

5. A fourth alternative catch-up contribution plan will be available to employees of teaching institutions who participate in 403(b) plans. For the current three plans, which appear to be relatively unknown to most faculty, the calculations utilized to determine the additional amounts that may be contributed will not change. The new plan, which will be available only to an employee of a teaching institution who has completed 15 years of service and participates in a 403(b) plan with a salary reduction agreement, will permit a maximum contribution of $3,000 above the new maximum limit of $9,500.

6. Tax exempt organizations and state and local governments will not be able to establish 401(k) plans. However, the 401(k) plans established by tax exempt organizations before July 2, 1986, or by state and local governments before May 6, 1986, may continue. These plans will be subject to the revised restrictions for 401(k) plans.

7. Ten-year forward income averaging, currently available to recipients of lump-sum distributions (i.e., payment of the entire balance) will be reduced to five years, and capital gains treatment of the taxable portion of the lump sum will be eliminated. Capital gains treatment of pre-1974 benefits (i.e., the employee's participation in the pension plan prior to 1974) will phase out after a five-year period beginning on January 1, 1987, and concluding on December 31, 1991. However, an employee who was age 50 as of January 1, 1986, may elect to use the capital gains treatment of pre-1974 benefits, subject to a maximum tax rate of 20%, and disregard the five-year phase out limitation. The new five-year forward income averaging will apply to only one lump-sum distribution that is made after the recipient has attained age 59-1/2.
1. Withdrawals from 403(b) plans involving salary reduction contributions will be prohibited prior to age 59-1/2 except on account of separation from service, death, disability, or financial hardship. The 1986 Code also amends the current prohibition on withdrawals from Sec. 403(b)(7) custodial accounts, from which the above exceptions are taken. Therefore, the exception permitting withdrawals based on financial hardship may allow for the withdrawal of salary reduction contributions only but not the earnings on those contributions.

2. A uniform minimum distribution requirement will go into effect. It will require that all pension plans, including Sec. 403(b) plans, provide for a minimum distribution of benefits not later than April 1 of the calendar year following the calendar year in which the employee attains age 70-1/2 without regard to the actual date of retirement or termination of employment. The Secretary of Treasury will issue regulations establishing the minimum amount required. If the amount distributed is less than the minimum amount required, then the employee is subject to a 50% surtax on the difference.

3. Nondiscrimination requirements will be applied to Sec. 403(b) plans. The objective is to prevent discrimination in favor of highly compensated employees. The 1986 Code applies current nondiscrimination requirements for Sec. 401(k) plans to Sec. 403(b) plans, creates new and tighter requirements for both plans, and revises Sec. 403(b) in order to make it conform to the new requirements. The major provisions of the new nondiscrimination requirements for Sec. 403(b) plans relate to coverage, participation, vesting, contributions, and benefits.

A. COVERAGE. Sec. 403(b) plans must satisfy at least one of the following coverage requirements:

1. the plan must benefit at least 70% of employees who are not highly compensated employees (a percentage test);

2. the percentage of non-highly compensated employees who benefit from the plan must be at least 70% of the highly compensated employees who benefit from the plan (a ratio test);

3. the plan must meet both a classification test and an average benefits test. Under the classification test, the plan must benefit such employees as qualify under a classification set up by the employer and found by the Secretary of Treasury not to be discriminatory in favor of highly compensated employees. The average benefit test provides that under the plan the non-highly compensated employees must have an average benefit percentage (i.e., the average of the benefit calculated separately for each employee in the group) that is at least 70% of the average benefit percentage of highly compensated employees.

Certain employees may be excluded from some or all of the tests.

The 1986 Code provides a new definition of a highly compensated employee, which will affect 403(b) plans on January 1, 1989. For our purposes, a highly compensated employee is one who during the current or preceding year received either: (1) compensation in excess of $75,000, or (2) compensation in excess of $50,000 and is in the top paid group (i.e., the group consisting of the top 20% of the employees when ranked on the basis of compensation paid during such year). In the case of a Sec. 403(b) plan with a salary reduction agreement, compensation does not include employer contributions.

B. PARTICIPATION. Sec. 403(b) plans will be required to meet the new
standard for minimum participation in tax-deferred plans. In order to maintain its tax deferred status, a plan must have, on each day the plan is in effect, the participation of the lesser of (1) 50 employees of the employer or (2) 40% or more of all employees of the employer. In addition, under a Sec. 403(b) plan with a salary reduction agreement, all employees may elect to participate in the salary reduction agreement if any employee participates in such an agreement. The minimum contribution under the salary reduction agreement must be $200.

C. VESTING. The minimum vesting standard will be revised from 10 years to 5 years. Thus, an employee who has completed at least 5 years of service has a nonforfeitable right to 100% of the employee's accrued benefit derived from employer contributions.

D. CONTRIBUTIONS. The 1986 Code creates a new nondiscrimination test for employer matching contributions and employee contributions under both defined contribution plans and defined benefit plans. It is the same test that will be applied to Sec. 401(k) plans. The test relates the contributions for highly compensated employees to the contributions for all other eligible employees. The penalty for excess contributions to highly compensated employees will be a 10% tax paid by the employer.

E. BENEFITS. The 1986 Code exempts state and local governments and tax exempt organizations from a significant change in the maximum annual benefit available under a defined benefit plan. They will retain the previous maximum benefit of $90,000 at age 62 and the benefit of $75,000 available for those who retire at age 55. The change for all other employers requires that the $90,000 maximum benefit be available at age 65 instead of age 62 and that benefits provided below age 65 be actuarially reduced.

Defined contribution plans and defined benefit plans that are integrated with Social Security will be required to meet new nondiscrimination tests.

AGGREGATION

Two factors will influence whether institutions with multiple pension plans will be able to demonstrate that one or more of the plans do not discriminate in favor of highly compensated employees. One is the coverage tests and specifically the classification test that would permit an institution to establish a classification of faculty and then require the Secretary of Treasury to determine if, as a result of that classification, the plans in effect lead to discrimination in favor of faculty as highly compensated employees. Tied to the classification test is the average benefits test which must be utilized simultaneously. The second factor is the new aggregation rules that have been incorporated into the 1986 Code. In order to determine the comparability of two or more plans established by an employer, the Internal Revenue Service has interpreted those sections of the 1954 Code that required nondiscriminatory coverage, contributions, or benefits. The IRS issued Revenue Ruling 81-202 in 1981, and it has permitted the aggregation of plans and the determination of comparability among those plans. The 1986 Code modifies the formula of Rev. Rul. 81-202 in order that it may be used under the several nondiscrimination tests and then incorporates it into the new law. As a result, it will be necessary for institutions with multiple plans to periodically compute the formula provided under the former Rev. Rul. 81-202, as modified. On the basis of both the coverage tests and the periodic computations of the aggregated plans, it will be possible for institutions to determine the comparability of their plans.

A SPECIAL RULE FOR COLLECTIVE BARGAINING AGREEMENTS

One of the cardinal rules of tax law that appears in the Tax Reform Act of
1986 is that changes in tax law should not interfere with current collective bargaining agreements. Thus, in the case of a pension plan maintained pursuant to a collective bargaining agreement that was ratified before March 1, 1986, the changes effective either January 1, 1987, or January 1, 1989, would not apply to employees covered by such an agreement before January 1, 1989, or the date on which the agreement terminates, or January 1, 1991.

CONCLUSION

The changes now in force as well as those contemplated for faculty pension plans represent a major challenge to faculties and their institutions. Perhaps, not surprisingly, Congress has managed to evade its goal of simplification of the law. But the complexity of the new law should not deter faculty members and appropriate faculty bodies from assuming responsibility for making the law work constructively within the academic community. Faculty, who historically have supported vigorously the creation and growth of institutional pension and retirement programs and have contributed the bulk of funds held under institutional programs, will play the most crucial role on the campus in determining the validity of the new law. As a result, they have a responsibility to require that plan administrators in private companies and public systems provide adequate, clear, and objective appraisals of the impact of the new law on pension plans currently in effect on their campuses. Faculty can no longer rely solely on the judgments of others about the soundness of their pension plans. Not only must they determine the current status of such plans but also they must be responsible for making recommendations about their future status. The new law could affect early retirement plans and may force the elimination of phased retirement plans. Each retirement plan should provide specifically for retirement at age 55. It may turn out that minimal changes are required, but faculty should make that decision on the basis of a clear understanding of how their plans are structured and how they operate. Furthermore, the move to change should not be done hastily. The Secretary of the Treasury is required to issue regulations that will interpret the law by February 1, 1988. As of this date, those regulations have not been issued. If it turns out that the new law works to the disadvantage of faculty, we have a responsibility to encourage Congress to change the law.

If the past three years of discussion about tax reform is any indication, the time has long since passed when faculty can remain indifferent or passive toward the details of their pension plans. Plan administrators and institutional benefit officers have an obligation to provide adequate orientation to new faculty and hold regular discussions with continuing faculty. An increase in orientation activities needs to be matched by an increase in pre-retirement counselling. While there is a debate over the source of such counselling, the need is immediate for faculty who are either close to retirement or must plan their pension contributions carefully in order to obtain maximum benefits at the time of retirement. Undoubtedly, there will be those who will recommend major shifts among pension plans. But the faculty ought not to be rushed into such changes without adequate discussion and consultation. Faculty should consider the advantages of their current plans and determine how they may be utilized constructively to carry out goals of institutional retirement and pension policies.