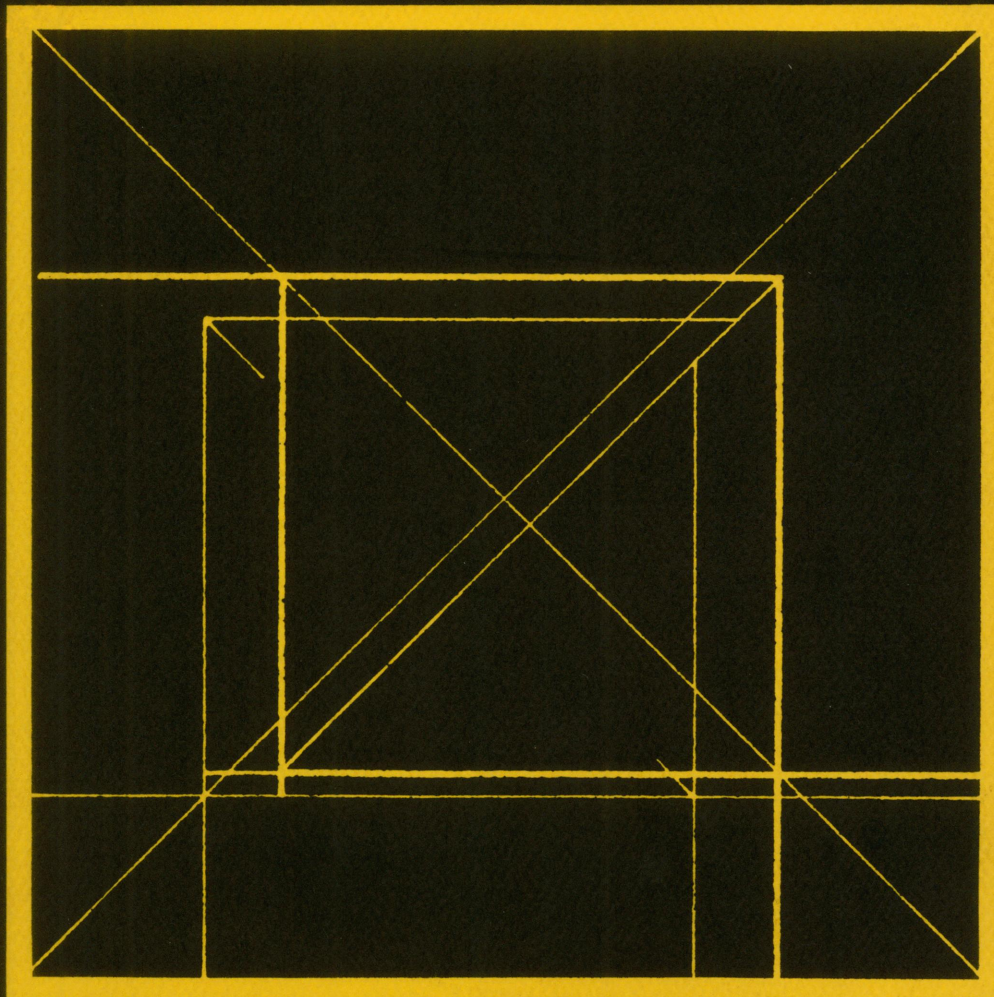


Practical Economics for Trade Unionists:

**Mathematics to Fight Inflation:
Developing Effective Cola Clauses**



(Labor Training Series Part I)

A publication of the Center for Labor Education and Research
University of California, Berkeley

Institute of Industrial Relations (Berkeley)

PRACTICAL ECONOMICS FOR TRADE UNIONISTS

PART I: Mathematics to Fight Inflation : Developing Effective COLA Clauses

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FOREWORD

This guidebook is based on the achievements of many union negotiators who have successfully written into their collective bargaining agreements the various kinds of Cost of Living Adjustment or COLA clauses described and analyzed herein.

The authors hope that the guidebook will help to educate everyone in the union about this important COLA supplement to wage bargaining, and that it may also help to keep the union's COLA clause up to date.

We wish to thank Cathy Davis for her skillful and diligent work on format design and typing.

LABOR TRAINING SERIES
PRACTICAL ECONOMICS FOR TRADE UNIONISTS

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DEVELOPING EFFECTIVE COLA CLAUSES

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PRACTICAL ECONOMICS FOR TRADE UNIONISTS

PART I: Mathematics to Fight Inflation : Developing Effective COLA Clauses

CHAPTER 1: WORKING WITH FIGURES

Nearly everyone suffers from the effects of rising prices--which now seem to be built into our economy. Persistent high rates of inflation are now a serious threat to the future economic health and well-being of the nation. The prices of the most essential goods and services--including housing, transportation and medical care--have increased more rapidly than other prices. The majority of working people and retirees (all those with relatively fixed incomes) are the largest losers; they must pay the inflated prices while their incomes keep falling behind the rapidly rising inflation rates.

A. THE MONEY ILLUSION: MORE DOLLARS DO NOT MAKE YOU BETTER OFF

The typical worker and consumer is indignant about rising prices--but usually has no way of computing the exact loss in purchasing power caused by inflation. In terms of dollar amounts, the typical worker's paycheck will usually look larger over time as inflation proceeds. But the extra dollars as well as the original dollars have cheapened in value and continue to be worth less and less.

Each worker's paycheck represents two kinds of income: the dollar amount stated on the paycheck and the actual value of what those dollars will buy in goods and services. Many workers may at first be fooled into thinking that negotiated pay increases and/or cost of living pay adjustments will fully protect their buying power. They learn otherwise by the experience of continually losing more purchasing power as prices spiral upward and erode their pay increases.

One of the purposes of this chapter is to show workers how to calculate the real buying power of their wage rates and their negotiated pay increases. The record clearly shows that on the average, workers in recent times have suffered a loss in buying power. They do not get the additional dollars it takes to buy the same goods and services, and what they do earn continually buys less than it could buy before.

B. OBJECTIVES OF PART I

The first objective of Part I of this series in Practical Economics for Trade Unionists is to show union representatives and workers how to handle figures and to make the many computations required in collective bargaining (Chapter 1).

The second objective is to show union representatives and workers how to calculate the real buying power of wage rates for different groups of workers in collective bargaining agreements, how to measure the impact of negotiated wage increases for these same specific groups, and how to judge what happens to the real buying power of a paycheck in inflationary times (Chapter 2).

The third objective is to show union representatives and workers how to construct a cost of living clause (COLA) which applies directly to any specific group in any specific bargaining unit (Chapter 3); and to analyze various negotiated COLA clauses (Chapter 4); and to construct a model COLA clause (Chapter 5).

C. HOW TO USE PART I

Each of the first three chapters of Part I consists of a discussion of the issues, an explanation of simple mathematical formulas which you must know how to use, examples of calculations or language, and self-testing exercises and answers.

Chapter 4 reproduces 19 cost of living clauses from major contracts and offers some analysis of their strengths and weaknesses. Chapter 5 then takes a "model clause" approach, by analyzing the kind of language that would be most advantageous to the workers covered.

Readers already familiar with the basic concepts and formulas of Chapters 1, 2 or 3 can go directly to Chapters 4 and 5; or you can pick up with Chapter 4, and then refer back to whatever you may need to review in the earlier chapters.

It is strongly urged that you buy a simple calculator to simplify working the problems. All the problems and examples in this book can be worked with a basic electronic hand or pocket calculator with an eight figure display, which would give a reading like this: 234.5678.

For a full understanding of the process of determining buying power by using the Consumer Price Index, or constructing a cost of living clause for your bargaining unit, we recommend that you work the sample tests. If the answers you get don't correspond to those furnished, work through the problem again and check for errors. The testing portions of Chapters 1-3 are especially important.

D. DECIMALS

When calculations give answers that run into decimals, the calculator may show a fixed number of digits after the decimal point, or the number of digits may be unlimited.

EXAMPLE: $5 \div 2 = 2.5$, which is the complete answer.

But, $10 \div 3 = 3.33333$, and the calculator will show as many 3s as it has room to display. Because there is no real end to the number of 3s in the answer to this simple kind of division problem, it becomes necessary to fix a limit. This is the process of rounding off.

E. ROUNDING: THE FORMULA

Calculations will often have to be rounded to the nearest cent to make them workable.

BASIC ROUNDING FORMULA

WHEN THE DIGIT AFTER THE FINAL DECIMAL PLACE IS LESS THAN FIVE (5), THE FINAL DIGIT IS UNCHANGED. IF THE DIGIT IS BETWEEN 5 AND 9, THE FINAL DIGIT IS ROUNDED UP TO THE NEXT NUMBER

EXAMPLE 1: A job for a junior engineer pays \$25,250 annually. What is the weekly rate of pay?

$$25,250 \div 52 = 485.57692$$

Rounded to the nearest cent is

485.58 per week.

EXAMPLE 2: Suppose the weekly wage for a machinist is \$346.77 per week. What is the daily rate?

$$346.77 \div 5 = 69.354$$

Rounded to the nearest cent is

69.35 per day.

EXAMPLE 3:

What is the hourly rate for the machinist above?

$$69.354 \div 8 \text{ hours} = 8.66925$$

Rounded to the nearest cent is

8.67 per hour

F. AVERAGES: THE FORMULA

An average is the sum of a set of items, divided by the total number of items. A simple average is the same thing as an arithmetical mean.

CALCULATING AN AVERAGE

ADD UP ALL THE ITEMS IN THE LIST TO GET THE TOTAL SUM.

DIVIDE THIS TOTAL BY THE NUMBER OF ITEMS IN THE LIST.

EXAMPLE:

The daily earnings of six workers in an office are the following. What is the daily average?

1. 76.24	3. 80.22	5. 69.32
2. 61.50	4. 72.96	6. 68.45

First, add up all the wage items in the list. The total is 428.69, which is the total daily wage bill in this plant.

Next, divide the total wage bill by the number of items--in this case, 6, which is the number of workers in the plant.

$428.69 \div 6 = 71.448333$. The average wage rounded to the nearest cent is

71.45.

Double-check to make sure there is no mistake in the calculations and in the rounding. If the average wage is multiplied by the total number of workers, the answer should be the total wage bill for this day in this plant:

$$71.45 \times 6 = 428.70$$

Rounding to the nearest penny makes the double-check answer slightly higher than the actual rate. If the unrounded figure of 71.448333 is multiplied by the 6, the double-check figure is the actual 428.69.

G. WEIGHTED AVERAGES

In dealing with wage rates, the weighted average measurement is more meaningful than a simple average, because most bargaining units include groups with different pay scales. If there are a lot of people earning the lower rates and only a few earning the higher rates, a simple average of the whole unit will distort the picture and make the "average" wage higher than it should be represented. (The use of an average in this and similar cases is a common statistical "distortion.")

The following example illustrates the concept of weighted average:

EXAMPLE :

The following are average earnings per day in a large plant:

Pay Grade A: 65.00
Pay Grade B: 80.00
Pay Grade C: 95.00

What are the average earnings for all three grades? The answer expressed as a simple average is \$80 (65 plus 80 plus 95 = 240, divided by 3 = 80).

But is the simple average really a useful answer?

Actually the number of workers involved in this plant is as follows:

Pay Grade A: \$65 . . . 750 workers
Pay Grade B: 80 . . . 150 workers
Pay Grade C: 95 . . . 50 workers

CALCULATING A WEIGHTED AVERAGE

TO FIND THE WEIGHTED AVERAGE IN THIS EXAMPLE, MULTIPLY THE NUMBER OF WORKERS IN EACH JOB CLASSIFICATION TIMES THE PAY RATE; ADD UP THE RESULTS FOR EACH JOB CLASSIFICATION AND DIVIDE BY THE TOTAL NUMBER OF WORKERS IN THE WHOLE UNIT.

The example now works out like this:

Pay Grade A: $65 \times 750 = 48,750$

Pay Grade B: $80 \times 150 = 12,000$

Pay Grade C: $95 \times 50 = \underline{4,750}$

Weighted total wage bill = 65,500

Total number of workers =

$750 + 150 + 50 = 950$

Weighted total wage bill (65,500) divided
by total workers (950):

$65,500 \div 950 = 68.947368$. Weighted
average daily earnings rounded to the
nearest cent are

68.95.

TEST #1

FINDING WEIGHTED AVERAGES

HERE IS SOME INFORMATION ABOUT THE TECHNOREX ELECTRONICS
COMPANY.

FOR THE WHOLE COMPANY

TECHNOREX COMPANY	NUMBERS EMPLOYED	AVERAGE EARNINGS	AVERAGE HOURS WORKED
DEPARTMENT A	191	\$512.10	48.2
DEPARTMENT B	97	547.20	41.9
DEPARTMENT C	49	684.10	43.5
DEPARTMENT D	28	835.00	42.0

WHAT ARE THE WEIGHTED AVERAGE EARNINGS IN
THE TECHNOREX COMPANY?

WHAT ARE THE WEIGHTED AVERAGE HOURS WORKED IN
THE COMPANY?

(ANSWERS AT THE END OF THIS CHAPTER)

H. PERCENTAGES

The term percentage is used frequently: you see headlines such as "unemployment reaches 8%"; or "women make only 60% of men's wages"; or "bur taxes are 6-1/2% in California"; or "buy now to get the 10% discount," etc.

But sometimes you can be unsure about how to work out a percentage. So in this section our aim is to give you a practical working knowledge of percentage calculations as they are often applied in trade union work. Use of the methods presented in the following pages will result in quick and accurate percentage calculations.

Some common percentages. Some percentage figures are in everyday use: 50% of something is half, 33-1/3% is a third, and 25% is a quarter.

These figures are easy to understand because the calculations are relatively simple. Fifty is exactly one half of 100; 33-1/3 is exactly one third of 100; and so on. Percent, literally translated, means "part of 100."

BASIC FORMULA FOR FINDING A PERCENTAGE OF A NUMBER:

TO FIND WHAT PERCENTAGE ANY NUMBER
(A) IS OF ANY OTHER NUMBER (B), DIVIDE
A BY B, AND MULTIPLY THE RESULT BY 100.

$$A \text{ AS A PERCENT OF } B = \frac{A}{B} \times 100$$

EXAMPLE:

THE ISSUE OF COMPARABLE WORTH

Two local presidents in an electrical manufacturing union were arguing about which local had done the best job through special wage adjustments to reduce the differential in rates between the classifications traditionally filled by men and those traditionally filled by women; the latter having been deliberately paid less by the employer because of sex discrimination.

The president from the Allied Electrical Co. contended that "Women are paid more in my plant than in yours."

"True, but proportionately, women get higher wages in our plant," answered the other local president from Technorex.

Was the second president correct?

	HOURLY EARNINGS	
	<u>Allied</u>	<u>Technorex</u>
Men	9.23	8.80
Women	5.77	5.66

To compare the two companies, find what women's wages are as a percent of men's wages in each case:

The percent at Allied is $\frac{5.77}{9.23} \times 100 =$

$$5.77 \div 9.23 \times 100 = 62.5\%$$

The percent at Technorex is $\frac{5.66}{8.80} \times 100 =$

$$5.66 \div 8.80 \times 100 = 64.3\%$$

The answer is clear: In the Allied Electrical Co. plant, women's earnings were 62.5% of the men's wages, whereas they were 64.3% of men's wages in the Technorex plant. The local president from Technorex was correct.

TEST #2 FINDING WHAT % ONE NUMBER IS OF ANOTHER

HERE IS SOME FINANCIAL INFORMATION DISCLOSED BY THE TECHNOREX COMPANY:

	<u>THIS YEAR</u>	<u>LAST YEAR</u>
SALES	\$3,499,000	\$2,887,000
PROFITS	487,000	303,000
MATERIALS	1,989,000	1,643,000
TOTAL WAGE BILL	1,023,000	941,000

WHAT PERCENTAGE OF SALES REVENUE WENT TO MATERIALS, WAGES AND PROFITS IN EACH YEAR?

NOTE THAT ONCE AGAIN YOU CAN DOUBLE-CHECK YOUR ANSWERS: THE THREE PERCENTAGES YOU WORK OUT SHOULD ADD UP TO A TOTAL OF 100%.

(ANSWERS AT THE END OF THIS CHAPTER.)

I. PERCENTAGE INCREASES

One of the most common uses of percentage figures in an inflationary period is in the comparison of rising prices. Using percentages we can compare the rate of increase in prices, wages, profits, etc. The principle involved in the calculations is exactly the same as in the basic method explained on previous pages.

To find a percentage increase, we simply apply the formula:

$$\frac{A}{B} \times 100$$

In this case, we want to find what percentage the increase is of the original amount, so A is the increased amount, and B is the original amount.

THE BASIC FORMULA FOR WORKING OUT
PERCENTAGE INCREASES IS:

PERCENTAGE INCREASE =

$$\frac{\text{INCREASED AMOUNT}}{\text{ORIGINAL AMOUNT}} \times 100$$

Work through the following examples, checking the results for yourself.

EXAMPLE :

A worker spent these amounts in one day this year:

food	\$11.05
utilities	4.71

On an equivalent day last year, the amounts had been:

food	8.91
utilities	3.13

What percentage had each item risen by? Remember, the method is to find the increased amount as a percentage of the original amount. So before you apply the percentage formula, you must first compute the increase in each item from the year before.

Here is how you would do the calculations:

food: increase =

$$11.05 - 8.91 = 2.14$$

$$\% \text{ increase} = \frac{2.14 \text{ (increased amount)}}{8.91 \text{ (original amount)}} \times 100$$

$$= 24.0\% \text{ (rounded to one decimal place)}$$

utility: increase =

$$4.71 - 3.13 = 1.58$$

$$\% \text{ increase} = \frac{1.58 \text{ (increased amount)}}{3.13 \text{ (original amount)}} \times 100$$

$$= 50.5\% \text{ (rounded to one decimal place)}$$

TEST #3

FINDING PERCENTAGE INCREASES

OUTPUT AND EMPLOYMENT HAVE BOTH INCREASED CONSIDERABLY AT THE PLACE WHERE YOU WORK OVER THE LAST YEAR; BUT YOU HAVE ALSO NOTICED A DISTURBING INCREASE IN THE NUMBER OF RECORDED ACCIDENTS. WORK OUT THE PERCENTAGE INCREASES FROM THE FIGURES GIVEN BELOW:

	THIS YEAR	LAST YEAR	% CHANGE
OUTPUT	143,000 UNITS	121,500 UNITS	_____
EMPLOYMENT	722	704	_____
ACCIDENTS*	103	73	_____

*CAUSING THREE OR MORE DAYS ABSENCE FROM WORK

(ANSWERS AT THE END OF THIS CHAPTER)

J. PERCENTAGE DECREASES

The method for finding a percentage decrease is just the same as that for finding percentage increases.

We apply the usual formula: $\frac{A}{B} \times 100$

But instead of A being the increased amount, it is of course now the decreased or reduced amount: The bottom line, B, is still the original quantity.

THE BASIC FORMULA FOR WORKING OUT
PERCENTAGE DECREASES IS:

PERCENTAGE DECREASE =

$$\frac{\text{DECREASED AMOUNT}}{\text{ORIGINAL AMOUNT}} \times 100$$

Check the steps in the following example to see how this works.

EXAMPLE:

A firm faced with declining sales revealed the following figures:

	<u>last quarter</u>	<u>this quarter</u>
sales	\$247,000	\$224,770
employees	486	360

How did the reductions in these figures compare?

sales---the reduced amount of sales was:

$$247,000 - 224,770 = 22,230$$

The decrease was therefore $\frac{22,230 \times 100}{247,000}$

$$= 9\% \text{ (exactly)}$$

employees---the numbers employed went down

$$\text{by } 486 - 360 = 126$$

The decrease was $\frac{126 \times 100}{468}$

$$= 26.9\% \text{ (to one decimal place)}$$

TEST #4 FINDING PERCENTAGE DECREASES

TECHNOREX HAS REVEALED THE FOLLOWING FIGURES IN ITS COMPANY REPORT AND ACCOUNTS. WORK OUT THE DECREASES IN EACH CATEGORY:

	THIS YEAR	LAST YEAR	% CHANGE
SALES	\$56,363	\$62,170	_____
EXPORT SALES	24,733	28,170	_____
WAGE BILL	14,927	15,623	_____

////////////////////////////////////
 //////////////////////////////////

TEST #1 ANSWERS:

	<u>earnings</u>	<u>hours</u>
A	191 x (512.10 = 97811.10)	x (48.2 = 9206.2)
B	97 x (547.20 = 53078.40)	x (41.9 = 4064.3)
C	49 x (684.10 = 33520.90)	x (43.5 = 2131.5)
D	28 x (835.00 = 23380.00)	x (42.0 = 1176.0)
	<u>365</u>	<u>207790.40</u>
		<u>16578.0</u>

$$\text{Weighted Avg. Weekly Earnings} = \frac{365 \times 569.29}{207790.40}$$

$$\text{Weighted Avg. Hours of Work} = \frac{365 \times 45.4}{16578.0}$$

TEST #2 ANSWERS:*

<u>Financial Data</u>	<u>This Year</u>	<u>Last Year</u>
Materials:	$\frac{1,989}{3,499} = 56.84\%$	$\frac{1,643}{2,887} = 56.91\%$
Wages:	$\frac{1,023}{3,499} = 29.24$	$\frac{941}{2,887} = 32.59$
Profits:	$\frac{487}{3,499} = 13.92$	$\frac{303}{2,887} = 10.50$
Double Check:(Total %)	$\frac{100.00}{100.00}$	$\frac{100.00}{100.00}$

=====

TEST #3 ANSWERS:*

Increase in output = 143,000 - 121,500 = 21,500

$$\% \text{ increase} = \frac{21,500}{121,500} = 17.70\%$$

Increase in Employment = 722 - 704 = 18

$$\% \text{ increase} = \frac{18}{704} = 2.56\%$$

Increase in Accidents = 103 - 73 = 30

$$\% \text{ increase} = \frac{30}{70} = 41.10\%$$

=====

TEST #4 ANSWERS:

Sales:	$\frac{62,170 - 56,363}{62,170} = \frac{5807}{62,170} = .093$	$.093 \times 100 = 9.3 \%$
Exports:	$\frac{28,170 - 24,733}{28,170} = \frac{3437}{28,170} = .122$	$.122 \times 100 = 12.2 \%$
Wage Bill:	$\frac{15,623 - 14,927}{15,623} = \frac{696}{15,623} = .0445$	$.0445 \times 100 = 4.45\%$

* To get the answers in percentages, the ratios were multiplied by 100.

CHAPTER 2: COMPUTING BUYING POWER AND THE REAL IMPACT OF INFLATION

With respect to wages and economic benefits, unions generally have two basic objectives in negotiating contracts. The first is to correct for any losses in buying power brought about by price increases or inflation. The second is to attempt to improve the standard of living of the members of the union by increasing their income enough to increase their buying power. These objectives are sometimes obtained by unions with sufficient bargaining power by negotiating large and substantial wage increases. Other unions negotiate a combination of general wage increases to improve their members' standard of living, and cost of living clauses to prevent inflation from eroding the buying power of contract wage rates.

The efforts of nearly all unions and certainly of American workers as a whole to protect their buying power have failed. Inflation has outraced all of the wage increases.

Our concern now is to explain exactly how to estimate the buying power of a given set of wages, and to determine whether the gains obtained in a given set of negotiations actually improve the buying power of the members from one pay period to another. This part of the chapter is also a "do it yourself" section. If you skipped the first part, refer back to it as necessary to understand the procedures used here.

A. THE CONSUMER PRICE INDEX: A MEASURING YARDSTICK

On page 15 is a compilation of twenty years of Consumer Price Index numbers for urban wage earners and clerical workers. This is the famous index you have heard so much about and it is the primary measuring yardstick we will use. Changes upward in this index trigger off millions of dollars in pay increases for workers and for millions of people receiving social security and other similar benefits. We will explain how such an index is put together, but at first glance several things should stand out:

WHAT THE INDEX SHOWS

1. The index tells us that it is a measure of the prices of urban workers.
2. The index tells us it is for all U.S. cities (actually prices in 56 cities are collected and averaged, to represent price changes throughout the U.S.)

chart 1

CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS

U.S. CITY AVERAGE

ALL ITEMS

(1967 = 100)

BUREAU OF LABOR STATISTICS, WASHINGTON D.C. 20212

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	AVG
1961	89.3	89.3	89.3	89.3	89.3	89.4	89.8	89.7	89.9	89.9	89.9	89.9	89.6
1962	89.9	90.1	90.3	90.5	90.5	90.5	90.7	90.7	91.2	91.1	91.1	91.0	90.6
1963	91.1	91.2	91.3	91.3	91.3	91.7	92.1	92.1	92.1	92.2	92.3	92.5	91.7
1964	92.6	92.5	92.6	92.7	92.7	92.9	93.1	93.0	93.2	93.3	93.5	93.6	92.9
1965	93.6	93.6	93.7	94.0	94.2	94.7	94.8	94.6	94.8	94.9	95.1	95.4	94.5
1966	95.4	96.0	96.3	96.7	96.8	97.1	97.4	97.9	98.1	98.5	98.5	98.6	97.2
1967	98.6	98.7	98.9	99.1	99.4	99.7	100.2	100.5	100.7	101.0	101.3	101.6	100.0
1968	102.0	102.3	102.8	103.1	103.4	104.0	104.5	104.8	105.1	105.7	106.1	106.4	104.2
1969	106.7	107.1	108.0	108.7	109.0	109.7	110.2	110.7	111.2	111.6	112.2	112.9	109.8
1970	113.3	113.9	114.5	115.2	115.7	116.3	116.7	116.9	117.5	118.1	118.5	119.1	116.3
1971	119.2	119.4	119.8	120.2	120.8	121.5	121.8	122.1	122.2	122.4	122.6	123.1	121.3
1972	123.2	123.8	124.0	124.3	124.7	125.0	125.5	125.7	126.2	126.6	126.9	127.3	125.3
1973	127.7	128.6	129.8	130.7	131.5	132.4	132.7	135.1	135.5	136.6	137.6	138.5	133.1
1974	139.7	141.5	143.1	143.9	145.5	146.9	148.0	149.9	151.7	153.0	154.3	155.4	147.7
1975	156.1	157.2	157.8	158.6	159.3	160.6	162.3	162.8	163.6	164.6	165.6	166.3	161.2
1976	166.7	167.1	167.5	168.2	169.2	170.1	171.1	171.9	172.6	173.3	173.8	174.3	170.5
1977	175.3	177.1	178.2	179.6	180.6	181.8	182.6	183.3	184.0	184.5	185.4	186.1	181.5
1978	187.1	188.4	189.7	191.4	193.3	195.3	196.7	197.7	199.1	200.7	201.8	202.9	195.3
1979	204.7	207.1	209.3	211.8	214.3	216.9	219.4	221.5	223.7	225.6	227.6	230.0	217.7
1980	233.3	236.5	239.9	242.6	245.1	247.8	248.0	249.6	251.9	254.1	256.4	258.7	247.0

3. The index tells us that 1967 equals 100. This is a crucial point and will be explained in detail below.

The index includes a great many numbers, by month and by year. These are known as index points or index numbers and will also be explained further below.

The CPI should be regarded simply as a yardstick to measure how much prices have risen (or fallen) over time. Wage rates and wage increases can be measured against such a yardstick (or index) to see if the wages of a particular group of workers have fallen behind, stayed even, or gone ahead of an increase in prices over a given time period.

USING THE PRICE OF MILK AS AN INDEX

It would be possible to take just one price out of all the thousands of prices and use it for a yardstick (or index). As an illustration, suppose the price of a gallon of milk was selected as our yardstick, and we wanted to know how much the price of milk had increased since 1967.

The 1967 price of milk is the base period price. This is the first element needed for putting together an index. Assume a base period price of \$1.00 per gallon.

The 1980 price of milk is the comparison period price. This is the second element needed in putting together an index. Assume a 1980 comparison period price of \$3.00 per gallon.

The third element needed is the amount of increase.

THE FORMULA FOR MEASURING PERCENTAGE PRICE INCREASES

REMEMBER THE FORMULA FOR WORKING OUT PERCENTAGE INCREASES:

PERCENTAGE INCREASE =

$$\frac{\text{INCREASED AMOUNT}}{\text{ORIGINAL AMOUNT}} \times 100$$

IN THIS CASE $\frac{\$2.00 \text{ (AMT. OF INCREASE)}}{\$1.00 \text{ (ORIGINAL BASE PRICE)}}$

$$\times 100 = 200$$

THE PRICE OF MILK HAS INCREASED 200% SINCE 1967.

If we were establishing an index only on the basis of increases in the price of milk, the 1980 index would now read 200 (1967 = 100). The figure 200 would then represent the percentage change (increase), as of 1980, from the original base period price of \$1.00 (as of 1967). Two hundred percent of \$1.00 is \$2.00. So what cost \$1.00 in 1967, now costs \$2.00 more in 1980, or a total of \$3.00, just to buy the same gallon of milk.

B. HOW THE BUREAU OF LABOR STATISTICS PUTS TOGETHER ITS INDEX

The BLS has selected a "market basket" of 1,000 goods and services which it has decided an average urban family will typically buy. Agents of the BLS collect the prices of each of these various items. (If you are interested in just how the index is put together, write the BLS for the publications listed at the end of this chapter.)

When the prices of all 1,000 goods have been collected from 56 cities in the United States, they are averaged and then added up to arrive at a total price for all the goods and services in the market basket.

Let us suppose that the total price of these 1,000 items in 1967 came to \$1900.00.

Then the base price for putting together the index is \$1900.00.

And the base time period is the year 1967.

But why does BLS then insist on using the number 100 as the index number of 1967, the base time period? This is strictly a matter of convenience. It will be clear from the next example that the use of 100 instead of 1900 makes the CPI simpler, and often useable at a glance. But it can also lead to errors of interpretation. It is necessary to remember that all the "index numbers" in the CPI yardstick are expressed as percentage changes in prices from the base time period.

Now look again at the CPI index on page 18. All of those numbers are percentage calculations against the base of 100 in the 1967 base period, going backward in time as well as forward. Each month BLS agents have combed through the 56 selected cities and collected the prices of the various items in the market basket of 1,000 goods and services. These have been totaled and averaged out into a composite new price or current price. Then the percentage change from the base is calculated and announced in percentages.

Take a specific example. We can find on page 15, that the average index figure for 1977 was 181.5. What this figure means is that since 1967, a ten year period, the prices measured increased 81.5%. Or, what cost \$1.00 in 1967, now requires 81-1/2 cents more, or a total of \$1.815, just to buy the same amount of goods and services.

C. USING THE CPI TO COMPUTE AN INCREASE IN PRICES

EXAMPLE: To show how BLS computes and reports the index numbers, assume that the prices of the 1,000 items in the market basket total \$3448.50, as a yearly average of all monthly prices during 1977.

These same items averaged \$1900 in 1967.

Then, $\$3448.50 - \$1900.00 = \$1548.50$

Using the formula to calculate the percentage change:

$$\frac{\text{increase}}{\text{base price}} \frac{1548}{1900} \times 100 = 81.5\% \text{ increase}$$

Or, reading directly from the CPI Index:

1967 = 100

1977 = 181.5 (yearly average.)

Thus, the index can tell us at a glance that a person needed \$81.50 more dollars just to buy the same goods purchased in 1967 with only \$100. Or, what cost only \$1.00 in 1967 now requires \$1.815. So dollars have become cheaper, and buying power of the paycheck is affected accordingly.

For a worker employed during both time periods, 1967 and 1977, it is necessary to have \$1548.50 more income just to buy the same items or just to "stay even" with inflation! Unless a worker gets pay adjustments that keep pace with inflation, s/he will be worse off than before in terms of buying power and his/her personal standard of living will have declined.

What you see in the Consumer Price Index on page 15 is a collection of mathematical calculations showing the percentage changes from the original prices in the base period of 1967. The announcement of the percentage change is issued each month by the Department of Labor. The amount of percentage change is used to determine pay adjustments in Social Security, union agreements and many other cost arrangements in our society.

D. THE CHOICE OF INDEX, AND PROBLEMS OF CONVERTING FROM ONE INDEX TO ANOTHER

In this manual you have been provided with a copy of just one of the indexes currently in use. It is the Consumer Price Index for Urban Wage and Clerical Workers (CPI-W). This is the index most often used in

union agreements. Theoretically there should be a difference between the CPI-W and the other major index published by BLS, The Consumer Price Index for All Urban Consumers (CPI-U.) CPI-U takes into account the supposedly different buying habits and choices of retired people and non-active workers. In practice, the two indexes have been showing much the same trends and percentages in upward price movements.

These two indexes are issued monthly and represent an average for the entire United States.

REGIONAL PRICE INDEXES

Regional CPI's are also available. These are issued for selected areas using the same market basket of 1,000 goods and services, but calculating the changes in prices for specified parts of the United States. The difficulty with these indexes is that all of them are issued every two months rather than on a monthly basis. Thus the national indexes are considered more useful.

There is another variation in the choice of indexes. Some union agreements still use indexes published by BLS with base periods of earlier years, such as 1957-1959 = 100. Should this be your situation and you have decided to convert to the latest index, be careful how you do it. A conversion problem arises in the change from use of an index with an older base period, because its index numbers will be larger. Thus it takes only 85% of a point of increase, using the 1957-1959 = 100 index, to produce the same result to be gotten from a full point of increase, using the 1967 = 100 index.

E. HOW TO USE THE CPI TO DETERMINE THE BUYING POWER OF WORKER'S INCOME

We are looking for a constant measure of the buying power of the dollar today compared to what that dollar would buy yesterday. The simplest example of this measuring problem is again the price of a gallon of milk, which we assume costs \$3.00 in 1980, but cost only \$1.00 in 1967. Two more dollars are needed today to buy what only one dollar bought in 1967. We can draw two important conclusions from this simple example.

First, if a worker bought the same amount of milk in 1980 that s/he bought in 1967, but did not earn an additional \$2.00 for every gallon of milk purchased in 1980, then the worker would have suffered a decline in buying power in terms of milk purchases.

Second, we can measure how much the buying power of a dollar declined, in terms of milk purchases. The formula is simple, because it is nothing more than the determination of what percent one number is of another.

FORMULA FOR MEASURING DECLINE IN THE VALUE OF A DOLLAR IN BUYING MILK

IN THIS CASE IT IS BASE PERIOD
VALUE OF THE DOLLAR DIVIDED BY THE
COMPARISON PERIOD VALUE OF THE DOLLAR,
MULTIPLIED BY 100, OR IN TERMS OF OUR
GALLON PRICES:

$$\frac{\$1.00 \text{ (1967 base period price/gallon)}}{\$3.00 \text{ (1980 comparison price/gallon)}}$$

$$\times 100 = 33.3\%$$

SO IN TERMS OF A GALLON OF MILK, THE
DOLLAR IN 1980 PRICES IS WORTH ONLY
33.3 CENTS COMPARED TO ITS VALUE IN
1967 PRICES.

Now if we turn back to our earlier use of the BLS index number for the year of 1977, we learned from the CPI in that example that a worker would have required \$1.815 at that time to buy the same goods and services that cost only \$1.00 in 1967. From this example, we can draw the same important conclusions we drew in the case of the gallon of milk.

First, we know that if a worker bought the same kinds and amounts of goods and services in 1977 as in 1967, but did not earn an additional 81.5 cents in 1977 for every dollar earned in 1967, then that worker would have suffered a loss in buying power--in terms of all goods and services purchased in 1977.

Second, we can measure how much the buying power of a dollar declined from 1967 to December 1977 in terms of the prices of all goods and services. The formula is the same as that for the gallon of milk.

FORMULA FOR MEASURING DECLINE IN VALUE OF A DOLLAR

THE BASE PERIOD VALUE OF THE DOLLAR
DIVIDED BY THE COMPARISON PERIOD
VALUE OF THE DOLLAR, OR

$$\frac{\$1.00 \text{ (base period value of dollar)}}{\$1.815 \text{ (average for 1977, comparison period value of dollar)}}$$

$$\times 100 = 55\%$$

SO IN TERMS OF THE PRICES OF ALL GOODS
AND SERVICES, THE DOLLAR IN 1977
PRICES IS WORTH ONLY 55 CENTS COMPARED
TO ITS VALUE IN 1967 PRICES.

Please note that in this example, we could also have divided the index number of 100 by the index number of 181.5, and then multiplied that answer by 100.

CALCULATOR SHORT CUT

As a matter of practical arithmetic, there is a rule which makes it possible to save time on all calculations which require multiplication by 100. In the above example, it was noted that:

$$\frac{100}{181.5} \times 100 = 55$$

THIS ANSWER WILL BE THE SAME IF WE DROP THE FINAL STEP OF MULTIPLYING BY 100, AND INSTEAD EITHER MULTIPLY THE NUMERATOR BY 100--THAT IS, MAKE IT 10000--OR DIVIDE THE DENOMINATOR BY 100--THAT IS, MOVE THE DECIMAL TWO PLACES TO THE LEFT AND MAKE IT 1.815. IN THIS EXAMPLE THE RULE IS THAT

$$\frac{100}{181.5} \times 100 = \frac{10,000}{181.5} = \frac{100}{1.815} = 55$$

APPLYING THE FORMULA TO A PARTICULAR GROUP OF WORKERS

Now we need to add a final step to our formula. We want to be able to take a wage rate (hourly or daily or weekly or monthly) for any group of workers, and for any time period, and determine whether those workers were doing better or worse in terms of their buying power, at the end of that time period compared to the beginning of that time period.

We can best derive our formula from an example:

EXAMPLE:

A group of workers have a weighted average wage of \$6.00 per hour as the result of a signed union agreement effective in December 1974.

The terms of the contract provide for periodic increases in pay plus limited cost of living pay adjustments which have added up to a total of \$1.00 in pay over the three year term of the agreement.

The new weighted average pay in November 1977, just prior to the expiration of the agreement in December, is \$7.00 per hour.

The question to be answered is, are the workers better off in terms of buying power in November 1977 than they were in December 1974?

To find the answer requires that we convert both wage rates into 1967 dollars and then compare them.

CONVERTING TO BASE PERIOD DOLLARS

THE BASIC FORMULA FOR CONVERTING RATES TO 1967 DOLLARS IS TO DIVIDE EACH RATE BY THE APPROPRIATE CONSUMER PRICE INDEX NUMBER (1967 = 100) FOR THE BEGINNING OR THE END OF THE TIME PERIOD IN QUESTION, AND MULTIPLY BY 100 IN EACH INSTANCE.

NOVEMBER 1977 WEIGHTED AVERAGE PAY RATE DIVIDED BY THE NOVEMBER 1977 CPI AND MULTIPLIED BY 100 =

$$\frac{\$7.00 \text{ per hour}}{185.4} \times 100 = \text{buying power in 1967 dollars of } \$3.775$$

DECEMBER 1974 WEIGHTED AVERAGE PAY RATE DIVIDED BY THE NOVEMBER 1974 CPI AND MULTIPLIED BY 100 =

$$\frac{\$6.00 \text{ per hour}}{154.3} \times 100 = \text{buying power in 1967 dollars of } \$3.889$$

LOSS IN BUYING POWER = 11.4¢ PER HOUR.

What the above example demonstrates is that in terms of 1967 dollars, the 1974 wage rate of \$6.00 per hour has a purchasing power of only \$3.89 because of inflation (it takes more dollars to get the same basket of goods); and that the 1977 wage rate of \$7.00 per hour is worth even less: only \$3.78 in 1967 dollars.

This particular group of workers, despite winning \$1.00 per hour in money wage increases, actually lost in terms of the buying power of their paychecks. Because dollars are cheaper, or have less value, it takes more and more of them just to stay even with previous buying power.

F. GENERAL FORMULA FOR MEASURING BUYING POWER OF WAGES

Thus, the formula for measuring whether the buying power of a group of workers has increased, stayed even, or fallen behind during any particular set of contract dates can be summarized as follows:

$$\frac{\text{WEIGHTED AVERAGE PAY RATE AT END OF THE CONTRACT}}{\text{CPI FOR FINAL MONTH COMPARISON PERIOD}} \times 100$$

= CURRENT WAGES IN 1967 DOLLARS (A).

$$\frac{\text{WEIGHTED AVERAGE WAGE RATE AT START OF THE CONTRACT}}{\text{CPI FOR MONTH IMMEDIATELY PRECEEDING EFFECTIVE DATE OF AGREEMENT}} \times 100$$

= BUYING POWER OF WAGES AT START OF UNION AGREEMENT (B).

SUBTRACT (A) FROM (B); THE RESULT TELLS YOU WHETHER BUYING POWER HAS INCREASED, DECREASED, OR STAYED EVEN.

The reason for using the month preceeding the signing of the union agreement as the base period month is that this will fully reflect the changes in the Consumer Price Index since the signing of the agreement. The same method of selecting a base period month must be used when putting together cost of living clauses, as will be explained below.

It is extremely important for bargaining committee members and union negotiators to be able to make calculations with the above formula in order to be effective in countering employer arguments about what the real value of previous contract settlements has actually been. In large bargaining units it may be difficult if not impossible for a union to directly calculate the weighted average pay of workers involved. However, under the NLRB rules, this information must be furnished by the employer upon request. Hence, a good policy is to ask for this information prior to each contract negotiation and use it as a basis for applying the formula described here.

Now try your own hand at making these real income calculations by working out the problems in tests 5 and 6.

TEST #5 DETERMINING REAL BUYING POWER (OR INCOME)

SOLVE THE FOLLOWING PROBLEM, USING THE FORMULA:

A GROUP OF WORKERS IS PREPARING FOR NEGOTIATIONS IN JUNE 1977. THEIR CURRENT AVERAGE PAY RATE IS \$10.00 PER HOUR. THEIR RATE OF PAY AT THE TIME OF SIGNING THE LAST CONTRACT IN JUNE 1975, WAS \$9.00 PER HOUR.

USING THE FORMULA:

A.	CURRENT WAGE RATE	6/77	<u>\$10.00 PER HOUR</u>
	CPI	6/77	
B.	WAGE RATE WHEN CONTRACT SIGNED	6/75	<u>\$ 9.00 PER HOUR</u>
	CPI	5/75	

SUBTRACT B FROM A ABOVE; THE ANSWER IS THE GAIN OR LOSS IN BUYING POWER.

FILL IN THE FIGURES FOR THE CPI FROM THE CHART ON PAGE 15. REMEMBER TO MOVE THE DECIMAL TWO PLACES TO THE LEFT (OR TAKE THE ADDITIONAL FINAL STEP OF MULTIPLYING BY 100.)

ANSWER THE FOLLOWING QUESTIONS:

1. WAS THE \$1 PER HOUR WAGE INCREASE LARGE ENOUGH TO KEEP UP WITH INFLATION?
2. WHAT WAS THE EXACT LOSS IN BUYING POWER PER HOUR OF THE WORKERS INVOLVED?

TEST #6 CALCULATING YOUR OWN REAL INCOME

TAKE YOUR OWN WAGE RATES FOR THE LAST MONTHS OF EACH OF THE FULL YEARS OF YOUR CURRENT COLLECTIVE BARGAINING CONTRACT, AND THE CONTRACT(S) JUST PRECEDING IT (IF NECESSARY).

TO ILLUSTRATE HOW TO SET THIS COMPARISON UP, WE ASSUME HERE A THREE YEAR CONTRACT, COVERING CALENDAR YEARS 1978-1980. BUT YOU CAN ADAPT THIS ILLUSTRATION TO YOUR OWN CONTRACT TERMS(S). IT WILL WORK WHETHER

TEST #6 CONT'

YOU ARE PAID ON AN HOURLY, DAILY, WEEKLY, OR MONTHLY BASIS

CONVERT TO 1967 DOLLARS, USING YOUR WAGE RATE FOR THE LAST MONTH OF EACH FULL YEAR OF YOUR CONTRACT(S) AND USING THE CPI NUMBERS FOR THE 13TH PRECEEDING MONTH IN EACH CASE, AS INDICATED IN THIS ILLUSTRATION

MONEY RATE A	CPI	REAL RATE A
JAN. 1981		
JAN. 1980	233.3	
JAN. 1979	204.7	

MONEY RATE B	CPI	REAL RATE B
DEC. 1979	230.0	
DEC. 1978	202.9	
DEC. 1977	186.1	

MONEY RATES A MINUS B	REAL RATES A MINUS B
FOR 1980	
FOR 1979	
FOR 1978	

WHAT IS THE TREND IN YOUR MONEY EARNINGS VS. YOUR REAL EARNINGS?

DO YOU FIND THAT YOUR MONEY RATE IS AN ILLUSION, AND THAT MORE DOLLARS ARE NOT MAKING YOU BETTER OFF?

IF THIS IS TRUE IN YOUR CASE, WHAT WOULD HAVE HAPPENED TO YOUR REAL INCOME DURING THIS THREE YEAR PERIOD IF YOU HAD NOT HAD ANY ADDITIONAL DOLLARS IN MONEY INCOME--I.E., IF YOUR EQUIVALENT OF THE DECEMBER 1977 MONEY RATE (IN THE ABOVE ILLUSTRATION) HAD REMAINED UNCHANGED THROUGH DECEMBER 1980?

**G. HOW TO CALCULATE CATCH-UP PAY REQUIRED,
GIVEN A SPECIFIC LOSS IN BUYING POWER OVER
A SPECIFIC TIME PERIOD**

HAVING DETERMINED THE LOSS IN BUYING POWER BY USING THE FORMULA IN PARAGRAPH F ABOVE, MULTIPLY THE LOSS BY THE CPI NUMBER FOR THE BEGINNING MONTH OF THE CONTRACT YOU ARE NEGOTIATING (OR THE ENDING MONTH OF THE TIME PERIOD YOU MAY OTHERWISE BE CONCERNED WITH).

THIS CONVERTS THE LOSS IN REAL WAGES EXPRESSED IN 1967 DOLLARS BACK INTO THE DEFLATED VALUE OF THE DOLLAR WHICH IS CURRENT FOR THE BEGINNING OF THE NEW TIME PERIOD.

EXAMPLE :

Workers at the end of a contract expiring February 1980, had a weighted average pay rate of \$11.00 per hour.

The same workers, on February 1, 1977, had a weighted average pay rate of \$9.00 per hour.

Using the formula, we get:

$$\frac{11.00 \text{ current rate}}{2.33^* \text{ Jan. 1980 CPI}} = 4.72 \text{ real wage at end of contract (in 1967 dollars)}$$

(1967 = 100)

$$\frac{9.00 \text{ rate at start of agreement}}{1.753^* \text{ Jan. 1977 CPI}} = 5.13 \text{ real wage at start of contract (in 1967 dollars)}$$

(1967 = 100)

$$4.72 - 5.13 = .41 \text{ per hour} = \text{the real buying power loss since January 1977 (in 1967 dollars).}$$

What we want to know is how much to ask for in "catch-up" pay in order to restore the members' purchasing power as it was in January 1977.

*The decimal point of these index numbers has been moved two places to the left to eliminate the final step of multiplying by 100.

Multiply the wage loss of .41 per hour (in 1967 dollars) by 2.33*, the CPI for January 1980.

The answer is that the workers need 95-1/2 cents per hour wage adjustment in current dollars to restore their buying power to what it was in January 1977.

This can be checked by adding 95-1/2 cents to \$11.00 and dividing by the current CPI of 2.33 (to get the real wage at the start of the contract period.)

Getting catch-up pay from an employer is extremely difficult and requires more bargaining power than most unions possess. But calculating the amount needed is very useful as an arguing point in negotiations, and also for rallying the membership to support negotiations.

Further, even if the union negotiates the full catch-up amount for its members, and they are paid the full amount at the end of the term of the expired contract, and the full amount is added to their base rates, the members are not nearly as well off as they would have been under a cost of living adjustment clause--whether the adjustments were made on a monthly, quarterly, semi-annual, or even on an annual basis (in the case of contracts longer than one year). This point will be further explained and illustrated when we discuss the impact of the COLA adjustment interval, in the next chapter.

H. ADDITIONAL INFORMATION AND SOURCES ON THE CPI AND ON COLA'S

The best source of data is the Bureau of Labor Statistics, which can be contacted at the U.S. Department of Labor, 450 Golden Gate Avenue in San Francisco (415/556-4678). A call there (or a call to any other Regional office of the Labor Department is all it takes to get the Consumer Price Index numbers you may need.

BLS also compiles information on negotiated clauses in contracts all over the U.S. Ask them for the latest in their Bulletin 1425 series, entitled "Deferred Wage Increase and Escalator Clauses."

The Division of Labor Statistics and Research of the California State Department of Industrial Relations compiles similar

*The decimal point of this index number has been moved two places to the left to eliminate the final step of multiplying by 100.

information on COLA clauses in California union agreements. You can get the latest publication in their series by requesting it from the Division (P.O. Box 603, San Francisco, California 94101).

For the best interpretive information on how to use the data and how best to represent your members in collective bargaining for COLA protection, you need the articles which are printed periodically in American Federationist. Here are the most recent ones, and to get a copy you can call or write to the authors of this publication, at the Labor Center, 2521 Channing Way, U.C. Berkeley 94720. There is no charge for reprints.

"Cost of Living Clauses: Inflation Fighters," by
John Zalusky, American Federationist, March 1975.

"Measuring Inflation: An Analysis of the CPI," by
Ann Draper, American Federationist, reprint series.

"The CPI: An Honest Measure," by Rudy Oswald,
American Federationist, June 1980.

"Cost of Living Clauses: Always Playing Catchup,"
by John Zalusky, American Federationist,
August 1980.

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TEST #5 ANSWERS:

The \$1.00 per hour wage increase was not enough to keep up with inflation; the workers lost 15¢ an hour in buying power.

CHAPTER 3: CONSTRUCTING A COST OF LIVING CLAUSE

The purpose of all cost of living adjustment clauses, hereinafter called COLAs, is to protect the purchasing power of the people affected, during a designated time period. When anyone gets a cost of living pay adjustment this is not a pay increase but merely an adjustment in money earned for the special purpose of restoring, in part or in full, the buying power that has been lost because of price increases.

Unfortunately, to the best knowledge of the authors of this chapter, no labor representative has yet succeeded in negotiating a cost of living clause which fully protects any group of workers against price increases. All clauses result in a lag in pay adjustments, which do not manage to keep up with price increases. (In the next chapter, we will discuss the BART COLA clause which was lost in the strike of 1979-1980, since this clause did come close to full protection of the transit workers it covered.)

What follows is a step by step presentation of how to put together a cost of living clause. It is strongly suggested that you follow these steps and work the problems presented. Even if you already have a cost of living clause in your contract, you may want to evaluate it and compare it with the alternatives and models presented in this chapter and in the next chapter.

A. STEP ONE: CHOOSE AN INDEX

Choose the index you wish to use for constructing your COLA clause, and get its exact title. Earlier, we indicated the variety of indexes available for your use, and recommended that you select the CPI-W (1967= 100). This index is issued monthly, and thus provides greater flexibility in selection both of the base month and of comparison months. Since many unions have contracts expiring in every month of the year, this is an important advantage.

Also, most of the available indexes generally move in the same direction by similar percentage amounts--even if they start at different levels. This is true of the regional indexes compared to the national, but is not quite true of CPI-W vs. CPI-U. These indexes include different population groups, and for this reason, CPI-W has begun to move up slightly faster than CPI-U.

Whichever index you select, it should be specified in writing by its exact title in your agreement. The necessity for naming the index has been demonstrated by the difficulties a number of unions and employers have experienced when only a vague reference to a Consumer Price Index was included in agreements. Arbitrations are a costly way of solving such disputes, which can involve considerable amounts of wage income.

B. STEP TWO: CHOOSE A BASE PERIOD UPON WHICH TO CALCULATE THE ADJUSTMENTS

It is important to remember that if a union contract is to be signed effective June 1, 1979, for example, the base period for measuring future changes in the CPI should be May 1979. The CPI data for May will more nearly approximate price conditions experienced by your working members as of the effective date of June 1. Further, the data is collected by the Bureau of Labor Statistics, which cannot release the information for a specific month such as May, 1979, until the following month of June. The same is true for any month.

Bear in mind, however, that the matter of the base period is subject to negotiations, like all other aspects of a COLA clause. Many employers, and especially those who may have granted substantial wage increases, will attempt to get later base periods designated for the calculation required by the COLA clause, just as they will want the effective dates of COLA adjustments to be as infrequent as possible.

Some unions and employers have negotiated COLA clauses with no clear designation of the base period. This has led to disputes as to which data to use to apply the COLA, and some of these disputes have led in turn to worker losses in COLA pay.

For reference purposes, remember that the Consumer Price Index numbers are reproduced in Chart 1 on page 14, for each calendar month in the period 1961 through 1980. Year end averages for these twenty years are also given in Chart 1.

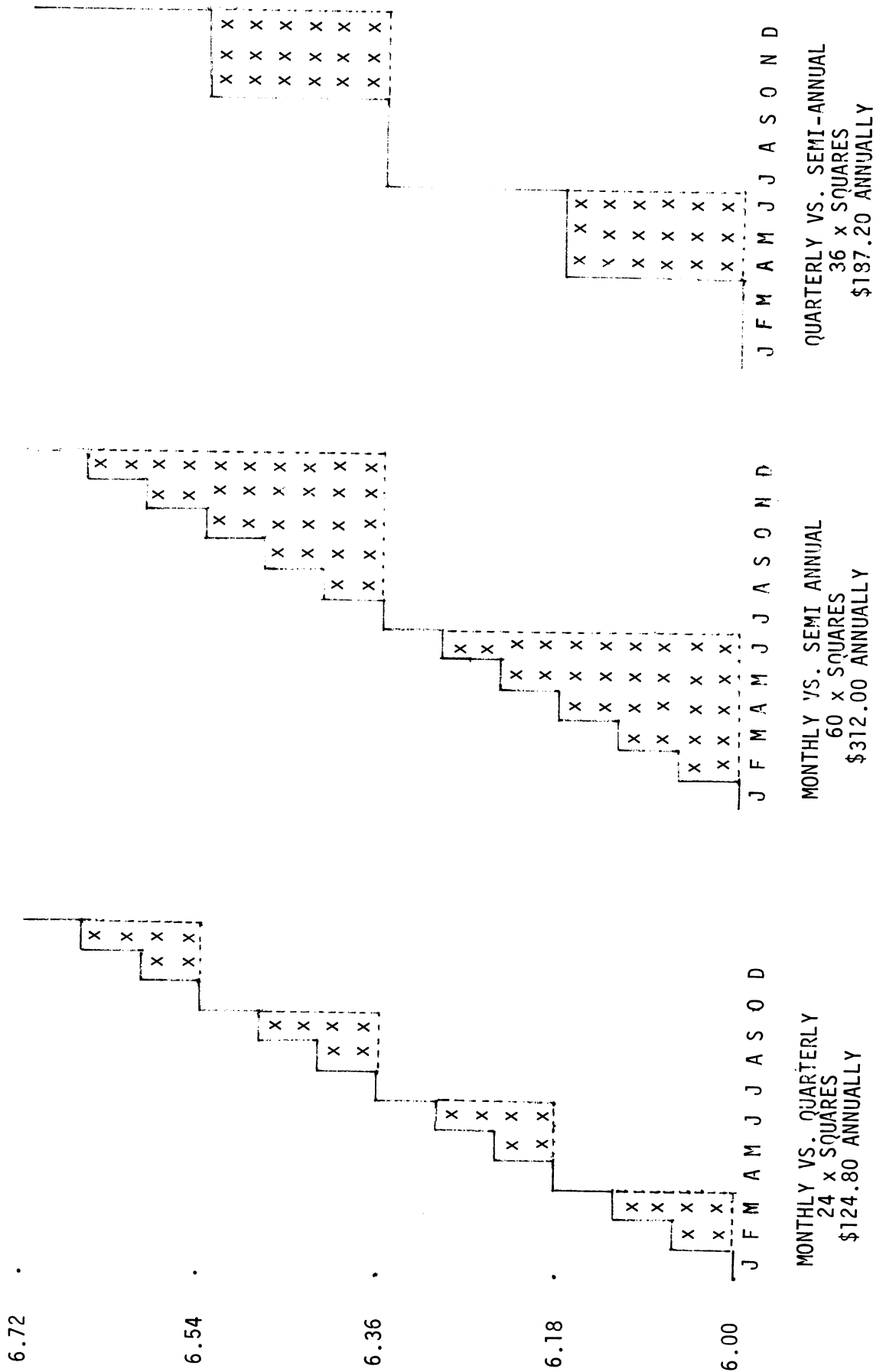
C. STEP THREE: CHOOSE THE INTERVALS OF ADJUSTMENT

The frequency of cost of living adjustments is a crucial consideration in putting together a COLA clause. It is also a matter for intensive negotiations. Employers prefer the adjustments to be spaced far apart, because of the obvious cost advantages to them. This point is graphically illustrated in Chart 2 on page 31, which compares three different adjustment intervals: monthly, quarterly and semi-annual. The comparisons are shown for a base rate of \$6.00 per hour, assuming a 40 hour work week and a 2,080 hour work year. This comparison further assumes that the \$6.00 base rate is to be adjusted for a 1% monthly rate of inflation over a one year period. (The inflation rate assumption here is very close to the actual rate of 12.5% annually in the U.S. in 1980.)

Looking at the highest step in each of the three ladders in Chart 2, it is clear that all three of the different adjustment intervals finally bring the base rate up to the same point--\$6.72--at the end of the one year period. This will be the uniform starting point during the next year, under all three of these adjustment intervals.

chart 2

AMOUNT OF ANNUAL INCOME DUE SOLELY TO THE COLA ADJUSTMENT INTERVAL
 WITH BASE RATE OF \$6.00 HR., 40 HR. WEEK, 2080 HR. YEAR, AND
 WITH 1% INFLATION RATE EACH MONTH, ADJUSTED MONTHLY,
 QUARTERLY, AND SEMI-ANNUALLY
 (each x square = \$5.20 annual income)



ADVANTAGES OF SHORTER INTERVALS

However, the main point of Chart 2 is that the different intervals result in very different amounts of money going to the workers involved. Each square in Chart 2 marked with an x sign represents an additional amount of \$5.20 being paid to the worker, under one kind of interval compared to another.

Here is the full range of possibilities for four different intervals, under the assumptions of Chart 2:

What the Worker Receives in COLA Payments for a Year Under:

	<u>Monthly Adj.</u>	<u>Quarterly Adj.</u>	<u>Semi-Annual Adj.</u>	<u>Annual Adj.</u>
Jan.	0	0	0	0
Feb.	10.40	0	0	0
Mar.	20.80	0	0	0
Apr.	31.20	31.20	0	0
May	41.60	31.20	0	0
Jun.	52.00	31.20	0	0
Jul.	62.40	62.40	62.40	0
Aug.	72.80	62.40	62.40	0
Sep.	83.20	62.40	62.40	0
Oct.	93.60	93.60	62.40	0
Nov.	104.00	93.60	62.40	0
Dec.	114.40	93.60	62.40	0
Total	686.40	561.60	374.40	- 0 -

Thus over the one year period, use of the monthly interval will net the worker \$686.40 more than use of the annual interval; and \$312.00 more than use of the semi-annual interval; and \$124.80 more than use of the quarterly interval.

Of course the quarterly interval also has a significant advantage over both the annual interval (\$561.60) and the semi-annual interval (\$187.20); and the semi-annual interval is \$374.40 better for the worker than the annual interval. It can at least be said for the annual interval that it is better than no adjustment whatever.

THE ADVANTAGES CONTINUE TO ACCRUE

If this same illustration is carried out for the second and third years of a three year contract, under the same assumptions, the same differences in annual income will occur in each of the next two years. These differences would increase in any year in which the past COLA amounts were added to the base rate, since the new COLA amounts would then become percentages of higher base rates. As the base rates increase, of course, the differences in income that accrue to workers under these different adjustment intervals also become greater.

Chart 2 makes it clear why the intervals of adjustment are difficult to negotiate. In some industries where unions have negotiated substantial pay increases at the start of the term of a union agreement, the employers have successfully obtained a delayed date or dates for the operation of the COLA clause. In a few industries, the employers have obtained COLA clauses where most of the increases take effect shortly before the union agreement expires. This is apparently done to "cool off" the members' strong support for substantial pay increases.

For these reasons, be careful when you negotiate the effective dates of the COLA clause, and include in the agreement examples of exactly how the clause will be applied, so there can be little or no dispute during the term of the agreement.

D. STEP FOUR: INCLUDE COLA AMOUNTS IN OTHER PAY RATES RELATED TO BASE WAGES

It is advisable to keep the entire COLA approach distinct and separate from any wage settlement designed to improve the standard of living of the bargaining group by increasing the purchasing power of the pay scales--rather than just catching up to the rate of inflation.

However, it is necessary to set forth in the union agreements the fact that any adjustments in pay created by the operation of the COLA clause must be incorporated into related rates of pay for such purposes as vacations, holidays, overtime or penalty pay, etc. Again, some unions have failed to do this and some employers have contended that the COLA payments stand alone, and are not applicable to those pay rates which are related to or tied to the base rates.

In many cases, union agreements explicitly treat COLA amounts as separate payments not incorporated into the base wage rates. But this is a separate question, which is considered further in "Step Five" below. Even if there is no provision in a contract for incorporating the COLA adjustment amounts into the base wage rates, there should be a provision for applying the adjustment amounts to all rates which are directly or indirectly related to the base wage rates. Specific contract language to accomplish this will be cited and explained in the next chapter.

E. STEP FIVE: PROVIDE IF POSSIBLE FOR ADDING COLA AMOUNTS TO BASE WAGE RATES

As with so many aspects of COLA clauses, the issue of when to add past COLA amounts to the base wage rates, rather than treating these amounts as continuing "adjustments" to the base rates, is an item of considerable cost impact--and will therefore usually become a negotiating issue.

COST IMPACT INVOLVED

To illustrate the cost impact under a monthly adjustment clause, using the data and assumptions of Chart 2, note that the adjustments to the \$6.00 base rate were in increments of 6¢ per hour each month (1% of the \$6.00 base rate = 6¢). The first year accrual is 72¢ per hour. If these adjustment amounts are not added to the base rate at any time during the term of a three year contract, the second year accrual will be 72¢ and the third year accrual will also be 72¢ (with the constant rate of inflation which was assumed).

If the monthly adjustment amounts are added to the base rates annually, the second year base will be \$6.72, and the 1% monthly adjustment amounts will then be 6.72¢ per hour instead of 6¢ per hour. At the end of the year, that will total 81¢ per hour, instead of 72¢ per hour. The third year base rate will then become \$6.72 + .81 = \$7.53, and the third year monthly adjustment amounts will be 7.53¢ per hour. At the end of the year, that will total 90¢, and the base rate at the expiration of the three year contract will become \$7.53 + .90 = \$8.43.

In this example, not only is the base rate automatically advanced by \$2.43 an hour, but the employer has paid 9¢ per hour more in the second year, and 18¢ per hour more in the third year.

BARGAINING IMPACT INVOLVED

To get the employer to agree to add the monthly adjustment amounts to the base wage rates at the end of each year of the contract will require very skillful negotiating, or rigorous economic pressure, or some useful and effective combination of both of these factors. This objective is not often accomplished. Instead, there may be a provision to add the COLA amounts to the base rates at the end of the contract term. But more often, there is no provision at all in the expiring contract, and the matter must be taken up as a new bargaining proposal in negotiations for the renewal of the agreement.

F. STEP SIX: CONSTRUCT A SAMPLE "PERCENTAGE COLA SYSTEM" FOR YOUR BARGAINING UNIT

At this point, our next step is to choose the kind of COLA system to be proposed in the next contract negotiations. This involves a choice between the percentage system, which is used less often, and the point system, which is used much more commonly. The point system prevails especially in private sector collective bargaining agreements, while the percentage system has gained more useage in the public sector.

To make the right choice between these systems, start by constructing a sample percentage COLA system for your own bargaining

unit. This is the simplest of the two systems, and whether you are able to negotiate it or not, its construction will permit you to deal more easily and knowledgeably with the extra steps involved in the point system.

What we are going to do in the percentage system illustration is simply to covert "points of change" in the CPI into percentage changes, for given time periods.

At this point you may ask, first, why do we have to convert, since the CPI numbers are percentage changes to begin with? The answer is that CPI numbers do represent percentage changes, but only for the base period of 1967--because we are using a CPI in which 1967 = 100. We are going to use different base periods in our measurements, and therefore we have to determine what the percentage changes have been by making additional calculations.

At this point you may also ask, secondly, what do we mean by "points of change" in the CPI?

For an example, the CPI number for December 1977, was 186.1, and the number for December 1979, was 230.0. The difference is 43.9 points of change. This term is used to apply both to the full points (43 of them), and to the decimal points of change (.9 of them). The term always refers to changes in the index numbers themselves. The 43.9 points of change in this example would equal 43.9 percent of change only in the special case in which we might be concerned with a time period having a base of 1967 = 100 (since we are using a CPI in which 1967 = 100). However, COLA clauses are almost always concerned with base periods other than 1967 = 100. Therefore, to repeat, we have to determine what the percentage changes have been by making additional calculations with the points of change.

AN EXAMPLE COLLECTIVE BARGAINING AGREEMENT

To illustrate the steps to be followed in constructing a sample percentage COLA system for your own bargaining unit, we will assume here that Local 1 of the International Workers of the World has a three year agreement with the Excello Corporation, which was effective January 1, 1978, and expires on December 31, 1980.

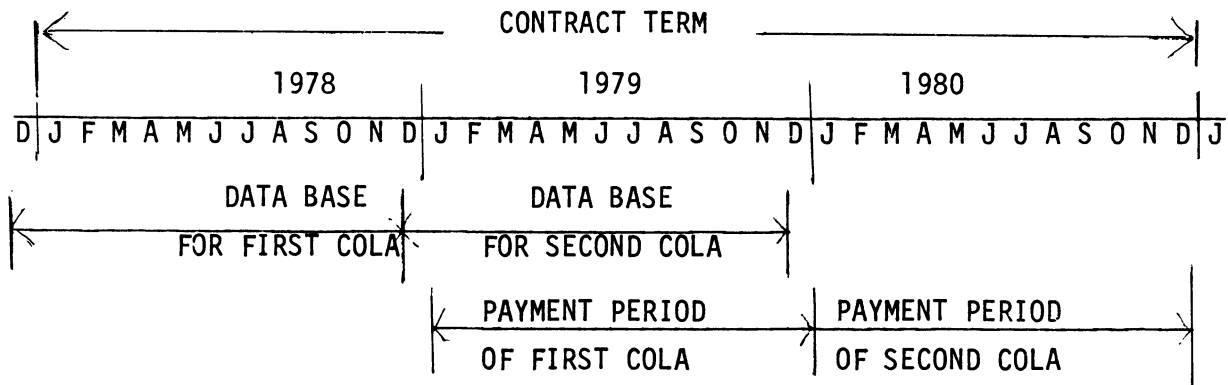
There was a general wage increase in our example agreement on January 1, 1978, and the agreement also provides for two cost of living adjustments, as follows:

First COLA: To be paid as of January 1, 1978, based on the amount of change in the CPI(W) 1967 = 100, between the base period month of December, 1977, and the month of December 1978.

Second COLA: To be paid as of January 1, 1980, based on the amount of change in the CPI(W) 1967 = 100, between the month of December 1978, and the month of December 1979.

TIME PERIODS INVOLVED

In the calculations which were made for the example bargaining unit when this copy was being prepared, the authors made many mistakes (including some which students might consider inexcusable). To keep things straight, we found it helpful to use the following diagram of the key dates and time periods affecting this example.



Note that for both adjustments, 13 months are included in the data base--i.e., December of one year, plus eleven more months, plus December of the following year. It requires 13 months of data to cover a 12 month time period.

Also note that in a typical three year agreement with a COLA clause requiring annual adjustments, there could be three such adjustments, rather than the two included in our example clause. The third such adjustment might be payable on the last day of the expiring agreement. We are omitting a third adjustment from our example because we can illustrate everything it is necessary to explain by using only two adjustment periods, rather than three. (We also recommend monthly or at least quarterly adjustment intervals, not annual.)

In our example, we assume further (a) that both of these cost of living adjustments are to be incorporated into the base wage rates only at the end of the contract term (and not folded in on an annual basis); and (b) that all point values and percentages are to be rounded to the second decimal place, and all wage payments are to be rounded to the nearest cent.

THE PERCENTAGE INCREASE FORMULAS

Chart 3 (on p. 38) lists the seven job classifications in the example bargaining unit, and indicates the number of workers in each. This chart also gets ahead of us by indicating the total amount of COLA payments for each job classification as of January 1, 1979, and January 1, 1980.

Here are two alternative formulas for determining these COLA amounts. The calculations for the example unit have been made and entered in Chart 3. The first formula should be familiar by now: it is nothing more than the percentage increase method first discussed on page 9. The second formula is a simple variation of the first:

PERCENTAGE INCREASE IN CPI

FORMULA 1:

$$\frac{\text{CPI (at end of adj. period)} - \text{CPI (at beginning of adj. period)}}{\text{CPI (at beginning of adj. period)}} \times 100$$

For the first COLA, this translates to:

$$\begin{aligned} & \frac{\text{CPI (Dec.78)} - \text{CPI (Dec.77)}}{\text{CPI (Dec.77)}} \times 100 \\ & \text{or } \frac{202.9 - 186.1}{186.1} \times 100 = \frac{16.8}{186.1} \times 100 = \\ & 9.027 = 9.03\% \end{aligned}$$

For the second COLA, this translates to:

$$\begin{aligned} & \frac{\text{CPI (Dec.79)} - \text{CPI (Dec.78)}}{\text{CPI (Dec.78)}} \times 100 \\ & \text{or } \frac{230.0 - 202.9}{202.9} \times 100 = \frac{27.1}{202.9} = \\ & 13.356 = 13.36\% \end{aligned}$$

APPLYING THE COLA AMOUNTS TO THE EXAMPLE UNIT

The percentage COLA system thus requires that all base rates be adjusted upward by 9.03% as of Jan. 1, 1979, and by 13.36% as of Jan. 1, 1980. These adjustments are made to the base wage rates which were in effect as of Jan. 1, 1978, in each case, since the adjusted amounts are not folded in (or added to) the original base wage rates until the end of the contract term (by our original assumptions for this example unit). The amounts of each COLA, and the adjusted wage rates are shown in Chart 3.

chart 3

EXAMPLE THREE YEAR AGREEMENT BETWEEN LOCAL 1, IWW, AND EXCELLO CORPORATION
EFFECTIVE JANUARY 1, 1978, EXPIRING DECEMBER 31, 1980

job classification and number in classification	base rate effective 1-1-78	weighted total hourly wage bill	PERCENTAGE SYSTEM			POINT SYSTEM		
			1st COLA 9.03%/hr. effective 1-1-79	2nd COLA 13.36%/hr. effective 1-1-80	amount base rate adjusted base rate	1st COLA 70¢/hr. effective 1-1-79	2nd COLA \$1.13/hr effective 1-1-80	adjusted base rate
PRESS OPERATOR	5	50.00	.90	10.90	1.34	12.24	10.70	11.83
WELDER	10	90.00	.81	9.81	1.20	11.01	9.70	10.83
GENERAL SHOP I	5	42.50	.77	9.27	1.14	10.41	9.20	10.33
GENERAL SHOP II	10	80.00	.72	8.72	1.07	9.79	8.70	9.83
ASSEMBLER	10	70.00	.63	7.63	.94	8.57	7.70	8.83
SET-UP	5	32.50	.59	7.09	.87	7.96	7.20	8.33
HELPER/SWEEPER	5	30.00	.54	6.54	.80	7.34	6.70	7.83
	50	395.00						

$$\text{WEIGHTED AVERAGE HOURLY WAGE RATE} = \frac{395.00}{50} = 7.90$$

The same kind of arithmetic can be carried out with the same results by using a slightly different formula, as follows:

PERCENTAGE INCREASE IN CPI

ALTERNATIVE FORMULA 2:

For the first COLA:

$$\frac{\text{CPI (at end of adj. period)}}{\text{CPI (at beginning of adj. period)}} = \frac{202.9}{186.1} =$$

1.09027 = 109.03% (which means
that the index has increased by
9.03% over the period)

For the second COLA:

$$\frac{\text{CPI (at end of adj. period)}}{\text{CPI (at beginning of adj. period)}} = \frac{230.0}{202.9} =$$

1.13356 = 113.36% (which means
that the index has increased by
13.36% over the period)

Again it pays to be cautious in using these index numbers. It may be very repetitious, but remember that the published CPI numbers can be translated directly to percentage numbers only when you are using the 1967 = 100 base period. In all other cases, you must make a calculation to change the base period, by using one of the two methods shown above. When you have then obtained the percentage increases for the base periods you are interested in, you can apply these percentages directly to the base wage rates of each classification of workers covered by the percentage COLA clause. These are the calculations that appear in Chart 3.

G. STEP SEVEN: CONSTRUCT A SAMPLE "POINT COLA SYSTEM" FOR YOUR BARGAINING UNIT

In the percentage system explained above, the only calculations we had to make were those which determined the percentage increase of CPI numbers during the two COLA time periods, with bases of December 1977, and December 1978. We then applied these percentage amounts directly to the base wage rates.

What we are going to do in the point COLA system is to determine a cents per hour amount of wage adjustment for each specified amount of change in the CPI, expressed in points of change, for the two COLA time periods.

When we have done this, how will we apply the adjustments?

In the percentage system, we applied the straight percentage increases directly to each individual wage rate.

In the point system, the cents per hour COLA is applied to the weighted average hourly wage rate for the bargaining unit. Thus, everyone who earns more than the weighted average hourly rate for the unit will be adjusted a little less than the full amount of the cost of living increase. And everyone who earns less than the weighted average hourly rate for the unit will be adjusted a little more than the full amount of the cost of living increase.

The net effect of the operation of the point COLA system over a period of time is thus to reduce the differentials in wage rates. This will appear in the data of Chart 4, when comparisons are made between the point system and the percentage system, as applied to the example bargaining unit.

HOW IS THE POINT SYSTEM COLA AMOUNT DETERMINED?

First, we must get the weighted average wage rate for our example bargaining unit. Using the same data and the same assumptions about the bargaining unit and the contract, which we used in the above discussion of the percentage COLA system, the calculations are made in Chart 3 (on page 38). The weighted average wage rate for the example unit, at the beginning of the three year contract, is \$7.90.

What we must next determine is how many points of change in the CPI must occur before there is a 1¢ per hour increase in the weighted average wage rate of \$7.90. In other words, what is the adjustment formula that will keep this weighted average rate up with changes in the cost of living which occur over the time periods we are concerned about in our example contract?

Expressed still another way, what we are determining is the number of points of change in the CPI that will be required for each cent per hour wage adjustment for someone we consider to be the most typical (although mythical) representative of everyone in our bargaining unit.

THE FORMULA FOR DETERMINING VALUE OF POINT CHANGES

The formula for determining how many points of change in the CPI will equal a 1¢ per hour wage adjustment, for a given group, for a given time period, is to divide the CPI for the beginning of the time period by the weighted average hourly wage rate for that group (WAW), expressed in cents per hour.

Thus, for the example bargaining unit,

$$\frac{\text{CPI (Dec. 1977)}}{\text{WAW (in ¢ per hr.)}} = \frac{186.1}{790} = .236 = .24 \text{ pts.}$$

so that .24 points of change in the CPI are required for each 1¢ per hour wage adjustment.

In other words, for each .24 points of change in the CPI there will be a 1¢ per hour wage increase at the end of each one year time period, under the assumptions made for our example bargaining unit.

In using this formula, be careful to change the weighted average hourly wage rate to total cents per hour--that is, to hundreds of pennies. If you happen to be working with a figure like \$15.50 per hour, that would become 1550 pennies in this formula. If you don't convert to hundreds of pennies, you cannot get an answer which will tell you how many points of change represent one penny's worth of wage adjustment.

Bear in mind at this point that we originally assumed (on page 36) that all point values would be rounded to the second decimal place. This is a procedure that should be followed in COLA clause development and interpretation, but often is not. It is more common in practice to round points of change only to the first decimal place. If this were the case in the above example, the answer would be

$$\frac{186.1}{790} = .23 = .2$$

We will see what a difference this makes when we calculate the amount of the two adjustments required in the example clause.

DETERMINING THE AMOUNT OF POINT SYSTEM ADJUSTMENTS:
FIRST COLA

The first COLA time period in the example unit was December, 1977 to December 1978. Therefore, first determine the points of change in the CPI in this time period, as follows:

December 1978 CPI = 202.9

December 1977 CPI = 186.1

Points of Change = 16.8

Then if each .24 points of change (rounded to the second decimal place) requires a 1¢ increase in hourly rates, the total increase is:

$$\frac{16.8}{.24} = 70¢ \text{ increase required as of January 1, 1979}$$

It is important to note that if our rule had been to round to the first decimal place only, then the hourly increase calculation would have been:

$$\frac{16.8}{.2} = 84¢ \text{ increase required as of January 1, 1979}$$

This 14¢ per hour difference is due entirely to dropping one decimal place, which in this case would of course be very favorable to the workers covered by this clause. However, any case of an answer which had to rounded up--for example, 2.76 rounded up to .3--would be equally unfavorable to the workers covered by this clause. Therefore, it is best to round to two decimal places instead of one. In particular, this recommendation must be followed if the point system is to give results which are nearly equal to the percentage system. Otherwise, some rather significant differences between the two systems will result almost entirely from the effects of the rounding procedure used when the value of point change is calculated.

DETERMINING THE AMOUNT OF POINT SYSTEM ADJUSTMENTS:
SECOND COLA

The second COLA time period in the example unit was December 1978, to December 1979. Therefore, again determine the points of change in the CPI in this time period, as follows:

December 1979 CPI = 230.0

December 1978 CPI = 202.9

Points of Change = 27.1

Then, if each .24 points of change requires a 1¢ increase in hourly rates, the total increase is

$$\frac{27.1}{.24} = 113\text{¢ or } \$1.13 \text{ per hour}$$

increase required as of
January 1, 1980

Note once again that if we had reduced the value of the point changes from .24 to .2, this would have given an hourly increase of \$1.36 instead of the \$1.13 calculated above. However, the extra amount would have been statistical distortion, and could just as easily have resulted in a reduction of the hourly amount of this adjustment. The original computation of the value of the point changes should follow the rule of rounding to two decimal places, in order to avoid such statistical distortion, and in order to keep the results of the point system closer to those of the percentage system.

H. STEP EIGHT: EVALUATE THE DIFFERENCES BETWEEN THE PERCENTAGE SYSTEM AND THE POINT SYSTEM

Chart 4 on page 43, shows the comparative COLA amounts generated by the two systems in the example bargaining unit, in terms of (a) the total COLA amounts; (b) the new base rates at the end of the contract term, with the total COLA amounts folded in; and (c) the weighted total hourly wage bills, together with the weighted average hourly wage rates.

TOTAL COLA AMOUNTS

It is clear from section (1) of Chart 4 that all the lower rated job classifications do better under the point system--up to and including the GENERAL SHOP II classification--and that all three of the highest rated classifications do better under the percentage system. Thus the tendency of the point system is to give comparatively greater increases to the lower rated job classifications, and therefore to reduce the differentials between lower and higher rated job classifications. The tendency of the percentage system is to preserve the original differentials by giving greater increases to the higher rated job classifications, and comparatively smaller increases to the lower rated job classifications.

BASE RATES WITH COLA AMOUNTS FOLDED IN

The final base rates are given in section (2) of Chart 4, and the comparisons do not show up at first glance. But look back to the spread of the wage rates that were in effect January 1, 1978: it was \$6.00 at the bottom and \$10.00 at the top, for a \$4.00 total spread. Also, the difference on January 1, 1978 between the two top rates was \$1.00 (\$10.00 for the PRESS OPERATOR vs. \$9.00 for the

chart 4

COMPARATIVE DATA FROM THE EXAMPLE AGREEMENT: POINT SYSTEM VS. PERCENTAGE SYSTEM

job classification and number in class	(1)				(2)		(3)	
	TOTAL COLA		BASE RATE WITH TOTAL COLA FOLDED IN		WEIGHTED TOTAL HOURLY WAGE RATE AT END OF CONTRACT TERM			
	base rate effective 1-1-78	percent system	point system	percent system	point system	Percent System weighted total hourly wage rate	Point System weighted total hourly wage rate	
PRESS OPERATOR	5 10.00	2.24	1.83	12.24	11.83	12.24 x 5 = 61.20	11.83 x 5 = 59.15	
WELDER	10 9.00	2.01	1.83	11.01	10.83	11.01 x 10 = 110.10	10.83 x 10 = 108.30	
GENERAL SHOP I	5 8.50	1.91	1.83	10.41	10.33	10.41 x 5 = 52.05	10.33 x 5 = 51.65	
GENERAL SHOP II	10 8.00	1.79	1.83	9.79	9.83	9.79 x 10 = 97.90	9.83 x 10 = 98.30	
ASSEMBLER	10 7.00	1.57	1.83	8.57	8.83	8.57 x 10 = 85.70	8.83 x 10 = 88.30	
SET UP	5 6.50	1.46	1.83	7.96	8.33	7.96 x 5 = 39.80	8.33 x 5 = 41.65	
HELPER/SWEEPER	5 6.00	1.34	1.83	7.34	7.83	7.34 x 5 = 36.70	7.83 x 5 = 39.15	
						<u>483.45</u>	<u>486.50</u>	

Weighted Average Hourly Wage Rate: $\frac{395.00}{50} = 7.90$ $\frac{483.45}{50} = 9.67$. . . $\frac{486.50}{50} = 9.73$
 (see chart 3 for computation)

WELDER, to use just one example of a rate differential). Now compare the base rates at the end of the term of the example contract, with the total COLA amounts folded in. The point system preserves both the total spread of \$4.00 and the \$1.00 differential between the two top rates. In the percentage system, the total spread has increased from \$4.00 to \$4.90 ($\$12.24 - \$7.34 = \$4.90$), and the differential in the two top rates has increased from \$1.00 to \$1.23 ($\$12.24 - \$11.01 = \$1.23$).

Which system distorts the original wage spreads and differentials? The answer is the point system. In terms of total spread, the original ratio of 6 to 10 is best preserved in the final percentage system ratio of 7.34 to 12.24. In terms of the differentials, again using the two top rates as the example, the original ratio of 9 to 10 is best preserved in the final percentage system ratio of 11.01 to 12.24. The distortions of the point system are very slight in this example, but they accumulate and become more pronounced over time.

In fact, this kind of distortion once contributed to a widespread revolt in the UAW--which was the first major union to develop a cost of living clause (then called an "escalator," in the late 1940s). Over the years of the 1950s and the early 1960s, the UAW clause worked to reduce the differentials between skilled and unskilled workers to such an extent that the skilled workers carried out a "revolt" against their leadership, resulting finally in restoration of some of the lost differentials.

WEIGHTED AVERAGE COMPARISONS

In terms of the weighted total hourly wage bills and the weighted average hourly wage rates which are derived from them (section (3) of Chart 4), here are the beginning and ending totals from our example bargaining unit:

	Point System		Percentage System	
	weighted total hourly wage bill	weighted average hourly wage rate	weighted total hourly wage bill	weighted average hourly wage rate
January 1, 1978 (beginning of contract)	395.00	7.90	395.00	7.90
December 31, 1980 (after both COLAs)	486.50	9.73	483.35	9.67

There appears to be a slight advantage in use of the point system. However, this is deceptive, because the example agreement did not assume that any deferred general pay increases would be added to the base rates during the term of the agreement. In practice, such deferred general pay increases are quite common. If they had been included in our example contract, they would have changed the COLA amounts and tipped the comparison in favor of the percentage system over the point system.

For example, assume that a 60¢ per hour deferred general wage increase was added to all the base rates of the example unit on January 1, 1979 (after the first year of the contract, and on the same date the first COLA is due to be paid). The percentage system will generally require payment of the second COLA based on the higher base rates of the second year of the contract. But in the point system, the formula to determine the value of point changes is generally based on the weighted average hourly wage rate of the base year. This formula is not generally recalculated during the term of the agreement, when deferred general wage increases are added to base rates. (In our example, this formula called for a 1¢ adjustment for each .24 change in the CPI, and was based on the weighted average hourly wage rate of \$7.90, as of the beginning date of the contract. The weighted average hourly rate would increase by 60¢ with the deferred general rate increase, but the .24 value of point changes would remain the same during the contract term.)

To summarize, if the example is re-calculated with a deferred general wage increase of 60¢ per hour after the first year, and with the COLA clause and assumptions otherwise remaining the same, the percentage system would return slightly more in COLA amounts than the point system. The re-calculation figures are not shown in Chart 4, but they result in the percentage system delivering slightly more than the point system both in terms of total hourly income to the employees, and in terms of increases in the weighted average hourly wage of the unit (\$10.33 per hour in the point system vs. \$10.34 per hour in the percentage system).

OTHER COMPARISONS

The percentage system is simpler--both for negotiators and for members. It involves fewer calculations, and it also eliminates the point system's problem of re-negotiating the value of point changes with each renewal of the agreement, in order to set a new value based on higher weighted average wage rates.

However, the percentage system is much more difficult to negotiate, because employers will generally prefer the point system. Their reasons may vary, but most often they will opt for the formula which they believe will give them the greatest degree of knowledge and predictability about labor costs during the whole term of the contract. Neither the point system nor the percentage system will give them full predictability (and they fight COLA clauses generally on this basis), but the point system gives them comparatively greater predictability--especially when deferred general wage increases are a part of any contract with a term longer than a year.

There are no inherent mathematical advantages for either system which are significant enough to dictate a choice. Of course, the matters of wage spread and wage rate differentials present policy issues for each union or bargaining unit to decide. However, distortions of the point system compared to the percentage system are not usually great enough during any single three year contract term to develop the kinds of problems which might be difficult to adjust in the next round of negotiations. It is only when these distortions are ignored over long periods of time that difficult problems can arise.

One issue is of greater concern than the choice between the point or the percentage system. That is the continual efforts of employers to water-down and compromise the impact of every conceivable kind of COLA system by negotiating limits to its application. In this regard, employers can be expected to be equally defensive whether the union is seeking to negotiate the point or the percentage system.

I STEP NINE: PREPARE TO FIGHT OFF CAPS, CORRIDORS, AND OTHER EMPLOYER PROPOSALS

Whether you seek to establish a point system or a straight percentage COLA, the employer will regard your proposal as a potentially large addition to his direct wage costs. He will therefore either oppose it entirely, or seek to compromise it.

We have already discussed two of the most usual employer efforts to water down your clause: (a) by increasing the time intervals between adjustments; there are a lot of annual adjustment intervals in contracts, and not very many monthly adjustment intervals; and (b) by resisting efforts to add the COLA amounts to base rates during the term of the agreement. This is done annually in the best COLA clauses, but there are not very many of these. The more usual procedure is not to "fold-in" at all during the contract term, but to negotiate this question when the contract is next renewed.

In addition, the employer may seek to limit the application of the COLA increase to straight time pay only, or straight time plus overtime--and specifically to keep it from applying to payments for time not actually worked, such as holiday and vacation pay.

There are also a number of common "add-ons" which the employer may come up with late in the negotiating game--even after agreeing on the basic formula to be used. Of course, all of these weaken the COLA clause, by reducing the amount of protection the workers will have against the impact of inflation.

However, in each negotiation, the employer's attempt to compromise your proposal must also be measured against other aspects of your bargaining situation. For example, the employer may be refusing to "fold-in" the COLA amount on an annual basis, but he may be agreeing to sizeable deferred increases in base rates. In that situation, you might be getting the fold-in in a more dependable way than you could get it in your COLA clause.

The following are the most common kinds of watered-down proposals or add-ons you can expect the employer to come up with: (1) COLAs with a "cap" (also called a "maximum"); (2) COLAs with a "corridor".

1. COLAs with a "cap" (also called a "maximum"): These clauses set a limit to the effect of a COLA percentage increase. A typical clause may provide that the maximum COLA adjustment which workers may receive during each contract year is 10 cents per hour. The advantage to employers is that they can predict exactly what the cost of a COLA clause may potentially be. From a union viewpoint this kind of clause is extremely restrictive. As with all similar employer proposals, the value of such a clause must be weighed against the kinds of general wage increases negotiated under the wage sections of the agreement. If these are large enough, they may offset the negative effects of a COLA cap.

2. COLAs with a "corridor": This is the term usually used in describing a variation which designates a specific amount by which the CPI must increase before workers may get a COLA adjustment. In such agreements the employer and union in effect "gamble" on how much inflation will take place, and the operation of the COLA clause is actually designed to protect against "runaway inflation." If the CPI does not go up past the designated corridor, the workers only get the general pay increases provided for in the wage section of the agreement.

Typically these clauses are constructed so that the percentage or point increase designated as the "corridor" or triggering amount, is first deducted from calculation of the COLA amount. For example, a corridor clause may provide that only after a 5% increase in the cost of living will the COLA clause take effect. Thus the first 5% change is ignored. If the percentage increase in the CPI is 10%, the workers only get a COLA adjustment of 5%. In all the many variations of this approach, the corridors are a kind of hurdle; after the upward change in the CPI has been reached, the COLA clause starts operating. A variant of this kind of clause is to set a ceiling, or cap, on the effect of the COLA clause in combination with a minimum corridor.

Some COLAs also provide a "minimum" pay adjustment. This variation is sometimes negotiated in lieu of any general pay increases in the wage section of the contract. Such clauses specify that the workers covered by the contract shall receive specified minimum pay adjustments regardless of the movement of the price index. In such cases the employer is gambling that the CPI will not rise above the amount of wage adjustment provided by the designated minimums. Usually these agreements combine the provisions for pay increases and COLA adjustments in the same section of the agreement.

There are other variations, and there are combinations of the above variations--for example, caps with corridors, and caps or maximums with minimum adjustments also specified. A COLA clause may also be used to provide for a wage reopener: that is, the union and employer may agree that if the CPI reaches a certain specified level, the agreement can be reopened and the union then retains its right to strike over wages and other economic benefits. Finally, a specialized kind of COLA clause is

now appearing in some contracts to give adjustments to retirees who may otherwise be provided for only in the pension plan.

Examples of all these variations appear in the next chapter, in the language agreed to by the union and employer in the course of collective bargaining.

TEST #7 TEST YOUR KNOWLEDGE

MINERS WORKING FOR PEABODY COAL EARNED AN AVERAGE OF \$13.00 AN HOUR IN 1980. IN NEGOTIATIONS FOR THE 1981 CONTRACT, PEABODY OFFERED A COLA WHICH WOULD RAISE PAY BY 1¢ AN HOUR FOR EACH 0.4 POINT RISE IN THE CPI-(W). THE UNITED MINE WORKERS DEMANDED A COLA WHICH WOULD RAISE PAY BY 1¢ AN HOUR FOR EACH 0.2 POINT RISE IN THE CPI-(W).

(1) WHICH PROPOSAL IS RELATED MORE REALISTICALLY TO THE AVERAGE WAGE OF THE MINERS AT THE TIME OF THE CONTRACT EXPIRATION?

(2) WHAT AVERAGE PAY RATE WOULD BE APPROPRIATELY CORRECTED BY THE EMPLOYER'S PROPOSAL FOR A 1¢ ADJUSTMENT FOR EACH 0.4 POINT RISE IN THE CPI?

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 //////////////////////////////////

TEST #7 ANSWERS

(1) The UMW proposal, because

$$\text{CPI Dec. 1980} = \frac{258.7}{1300} = .199 = 2.0$$

Refer back to the formula for determining value of point changes.

(2) Here is the algebra to determine the average pay rate which would be appropriately corrected by the employer's proposal:

$$\begin{aligned} \text{CPI Dec. 1980} &= \frac{258.7}{x} = \frac{0.4}{1} \\ \text{Average Wage} &= \end{aligned}$$

By cross multiplying the equation: $.4x = 258.7$ and

$$x = \frac{258.7}{.4} = 646.7 \text{ c} = \$6.47.$$

Check: using formula for determining value of point changes:

$$\frac{258.7}{647} = .399 = .4$$

CHAPTER 4: ANALYZING SAMPLE CLAUSES

In this Chapter, nineteen sample clauses are reproduced, with space left beside each clause for you to use in making your own notes. You can improve your own expertise enormously by noting down the strong points or the weak points of each clause. You may also want to underline the kind of language that appears to give the best protection, so you can check back to it whenever you may need to do so.

Following each clause are notes and comments by the authors. But you may cover some points in your own notes that we missed, so if you want to get the most out of this exercise, do your own notes first, and then check ours.

Then let us know if we should include some points of your analysis in the next revision of this manual.

Also, we would like to hear from you if you have already developed a COLA clause with a useful variation that is not represented in the sample clauses used in this Chapter. If you send us a copy of your clause, we'll include it in our next revision. Thanks, and good luck with the following analysis.

SAMPLE CLAUSE 1

UE/GE NAT'L AGREEMENT EFF. 1973

2. The Company will provide cost-of-living increases as follows:

a) Cost-of-living adjustments effective on the dates shown below in the amount of one cent (1¢) per hour for hourly employees (forty cents (40¢) per week for salaried employees) for each full three tenths of one percent (0.3%) by which the National Consumer Price Index (Base 1967 = 100), as published by the United States Bureau of Labor Statistics, increases in the applicable measurement period, up to the maximum amounts shown in the adjustment ranges below.

<u>effective date</u>	<u>measurement period</u>	<u>adjustment range</u>
May 28, 1973	October 1972 through April 1973	Up to 10¢ per hour for hourly employees. Up to \$4.00 per week for salaried employees.

Nov. 26, 1973	April 1973 through October 1973	Up to 5¢ per hour for hourly employees. Up to \$2.00 per week for salaried employees.
Nov. 25, 1974	October 1973 through October 1974	Minimum of 10¢ per hour and up to 14¢ per hour for hourly employees. Minimum of \$4.00 per week and up to \$5.60 per week for salaried employees.
Nov. 24, 1975	October 1974 through October 1975	Up to 12¢ per hour for hourly employees. Up to \$4.80 per week for salaried employees.

b) No adjustment, retroactive or otherwise, shall be made in pay or benefits as a result of any revision which later may be made in the published figures for the Index for any month on the basis of which the cost-of-living calculation shall have been determined.

c) In the event the Bureau of Labor Statistics issues a revised Index with a conversion table by which the present Index can be made applicable to any change in said Index, the Union and the Company agree to accept such conversion table. If no such conversion table is issued following any revision of the Index, the parties will promptly undertake negotiations solely with respect to agreeing upon a substitute formula for determining a comparable cost-of-living adjustment, and failing agreement in such negotiations, the Union and the Locals shall, upon giving 10 days' notice, have the right to strike solely with respect to such issue.

3. The wage and salary increases noted in 1 and 2 above constitute the amounts by which:

a) Each hourly daywork rate or weekly salary rate in effect on the date of each increase shall be increased.

b) The earnings of incentive workers (excluding night shift differential) computed in accordance with the formulas and procedures in effect and applicable to such incentive work at the time of its performance, shall be increased.

LABOR CENTER NOTES:

- (1) OK for 1973, but this clause now would have to specify which "National" CPI--U or W.
 - (2) Good application to salaried as well as to hourly employees
 - (3) The various caps are limiting, but use of the 10¢ minimum increase is an interesting variation.
 - (4) Good protection against any loss from statistical revision, including the right to strike if necessary.
 - (5) The language of para. 3 appears to fold the COLAs into the base rates, but this apparent intent should be specified more clearly.
 - (6) Interesting final clause makes COLA increases applicable to incentive workers, although the formula by which this is to be done is not specified.
-

SAMPLE CLAUSE 2

CATERPRILLAR/IAM EFF. 6/7/74

Section 2--Cost-of-Living

1. Cost of living adjustments will be made in accordance with the succeeding provisions of this Section on the basis of changes in the revised Consumer Price Index--San Francisco-Oakland Area, published by the Bureau of Labor Statistics, United States Department of Labor (1967 equals 100) hereinafter referred to as the "Price Index." For purposes hereof:

- (a) Base Price Index means a Price Index figure of 139.2 (March, 1974).
- (b) Comparison Price Index means the Price Index for March next preceding the April adjustment dates; for June next preceding the July adjustment dates; for September next preceding the October adjustment dates; and for December next preceding the January adjustment dates.

(c) The adjustment dates will be:

July 1, 1974	January 1, 1976
October 1, 1974	April 1, 1976
January 1, 1975	July 1, 1976
April 1, 1975	October 1, 1976
July 1, 1975	January 1, 1977
October 1, 1975	

2. For each adjustment date there shall be computed an adjustment amount which shall be an amount equal to one (1) cent per hour (without fractions) for each full 0.4 points by which the Comparison Price Index relating to that adjustment date exceeds the Base Price Index, and such adjustment amount shall remain in effect from the adjustment date for which it was computed only until the next succeeding adjustment date or, in the case of the adjustment amount computed for the adjustment date next preceding the termination date of this Agreement, until such termination date.

3. Each employee's straight-time hourly rate for work performed on or after the first adjustment date and until the termination date of this Agreement shall be the rate produced by adding to his straight-time hourly rate determined without regard to the provisions of this Section, the adjustment amount in effect at the time the work is performed.

4. No changes, retroactive or otherwise, shall be made in any adjustment amount because of any revision in the published figure for any Price Index made or published after the adjustment date for which such adjustment was computed.

5. So long as the official Price Index continues to be available in the same form, and calculated on the same basis as the Price Index currently being issued by the Bureau of Labor Statistics, the Price Index in that form and calculated on that basis shall be used in applying the provision of this Section, regardless of the concurrent existence of any other official price index in a different form or calculated on a different basis.

6. If said Price Index ceases to be available in the same form and calculated on the same basis as the Price Index currently being issued by the Bureau of Labor Statistics and is replaced by a new index published by the Bureau of Labor

Statistics, the parties shall meet promptly for the purpose of making a strict mathematical conversion of the table herein contained from the basis of the Price Index to the basis of such new index, in order that any subsequent adjustment as provided herein may be based on such a converted table without altering in form or amount the original intent of the parties.

LABOR CENTER NOTES:

(1) Good explanation of how this quarterly adjustment clause works.

(2) The language of para. 3 does not incorporate COLA amounts into base rates. It simply adds the appropriate COLA amounts to the base rates (set forth elsewhere) for the duration of this agreement. It would be better to provide for incorporation in this clause, and not to leave this matter to be negotiated in the next contract.

(3) Provides an interesting and adequate method of statistical conversion, if it should be required, in para. 6.

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SAMPLE CLAUSE 3

IAM/METAL TRADES MASTER AGREEMENT EFF. 1968

Section 5. Cost-of-Living

(a) If, during the period of this Agreement, the Bureau of Labor Statistics Consumer Price Index--San Francisco-Oakland Area, hereinafter referred to as the B.L.S. shall increase, cost-of-living adjustment will be made in each classification wage rate in accordance with the following formula.

(b) Cost-of-Living Formula--If, during the period from December, 1968 to June, 1969, the B.L.S.-C.P.I. shall rise above the December, 1968 level there shall be added to the straight time hourly wage rate of each employee a cost-of-living adjustment of one cent (1¢) increase for each full .5 change in the Index. The same form of adjustment shall be made for the remaining three periods of adjustment, i.e. from--

1. June, 1969 to December 1969;
2. December, 1969 to June, 1970; and
3. June, 1970 to December, 1970.

This cost-of-living adjustment under this formula, if any, shall be made on the first pay period following the publications of the June, 1969; December, 1969; June, 1970; and December, 1970 Index figures.

Cost of Living adjustments shall be used in computing overtime, vacation payments, holiday payments, call-in and call-back pay.

(c) No adjustment, retroactive or otherwise, shall be made due to any revision which may later be made in the published figures for the B.L.A. Consumer Price Index for any base period.

(d) It is agreed that the cost-of-living adjustments are to be based on the revised Bureau of Labor Statistics Index. However, should there be a complete revision of the method used by the United States Department of Labor to calculate the Index (Consumer Price Index) the Index will be invalidated as a means of computing cost-of-living wage adjustments in the Agreement. In such event, this Agreement will be reopened for the sole purpose of developing a new basis for computing adjustments in wages due to changes in the cost-of-living.

LABOR CENTER NOTES:

(1) Identification of index in para.(a) does not include base year of the index. Is it 1959 = 100, or 1949 = 100? The difference in amounts of COLA resulting from use of these different indexes would be considerable.

(2) Note in para.(b) that each six month adjustment period correctly specifies the use of seven months for its data base.

(3) Use of COLA amounts for various kinds of payments is specified in the last sentence of para.(b).

(4) Good re-opener clause in para.(d) in case of complete revision of method used to calculate the index.

.

SAMPLE CLAUSE 4

GRAPHIC ARTS UNION EFF. 1975

**SECTION 19
COST OF LIVING**

19.1 During the life of this Agreement, the wage rate for each employee will be increased or decreased in accordance with the rise or fall of the Consumer Price Index for San Francisco, All Items, 1967 = 100, New Series, issued by

The United States Bureau of Labor Statistics, but at no time will the rates be below the wage scales appended to this Contract. Adjustments, when required, will become effective the first payroll week following quarterly publication of that Index and will be arrived at as follows:

19.2 For each one point rise in the Index above a base of 156.0, there will be a four cents (4¢) per hour increase in the employee's current wage rate.

19.3 No adjustments, retroactive or otherwise, shall be made due to any correction, which later may be made in the published figures for the B.L.S. Consumer Price Index.

LABOR CENTER NOTES:

(1) In para. 19.2, the formula which is given is equal to a 1¢ increase for each .25 points of increase in the Index, which stood at 156.0 in the base period. What base wage rate would this formula correctly adjust for cost of living increases? The answer is

$$\frac{156.0}{x} = \frac{.25}{1} \text{ or } .25x = 156.0 \text{ or } x = \frac{156.0}{.25} \text{ or } x = 15600 \div 25$$

or $x = 624$ (cents) or $x = \$6.24$.

Base rates of less than \$6.24 will be adjusted under this clause more than the increase in the cost of living, and base rates of more than \$6.24 will be adjusted less than the increase in the cost of living.

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SAMPLE CLAUSE 5

INT'L MOLDERS/FOUNDRY TRADES EFF. 1976

COST-OF-LIVING PROVISION

2. Cost of living adjustments will be made on the basis of changes in the B.L.S. Consumer Price Index for U.S. Large Cities (1967 Base = 100) between the three periods set forth below and on the basis of 1¢ for each .4 point increase in excess of a five point increase in each period.

First period April, 1977 index to October, 1977 index; Second period October, 1977 index to May 1978 index; Third period May, 1978 index to January, 1979 index.

Increases in wage rates resulting from the foregoing will be payable in the first full payroll period following the release of the index for the month ending each period.

LABOR CENTER NOTES:

(1) OK for 1976, but this clause now would have to specify which "Large Cities" index, CPI-U or CPI-W.

(2) The corridor of 5 points eliminates a lot of COLA payments. Here are the increases in the CPI-W for the three adjustment periods of this clause. You can figure for yourself in cents per hour the effect of the five point corridor:

Oct 1977: 184.5
Apr 1977 179.6
4.9

Sorry, no COLA for this six month adjustment period. Otherwise
 $\frac{4.9}{.4} = 12\text{¢}$

May 1978: 193.3
Oct 1977 184.5
8.8
.4

minus 5.0 = $\frac{3.8}{.4}$ or 9.5¢ for this seven-month adjustment period

Jan 1979: 204.7
May 1978 193.3
11.4
.4

minus 5.0 = $\frac{6.4}{.4}$ or 16¢ for this eight-month adjustment period

(3) Use of three six-month adjustment periods (instead of the 6-7-8 month adjustment periods) would have resulted in payments of the last COLA three months before the expiration of the agreement, instead of on the eve of the expiration. The employer likes it the way it is. The union should change these adjustment periods, at least back to a uniform six months.

(4) There are no protections against changes or corrections or revisions of the Index; and no extension of the COLA amounts to other kinds of payments (overtime, vacation, holiday, call-back, etc.); and no provision for folding COLA amounts into base wages.

.

SAMPLE CLAUSE 6

GLASS BOTTLE BLOWERS/BROCKWAY EFF. 1980

ARTICLE 44 Cost-of-Living

Section 1. During the term of this Contract, annual cost-of-living increases will be made on

April 1, 1981, and on April 1, 1982, in accordance with the provisions of this Article.

Section 2. Cost-of-living increases, if any, will be added by using the Consumer's Price Index (1967 = 100, Urban Wage Earners and Clerical Workers (revised CPI-W)). After the percentage limitations for increases set forth below have been met, the amount of any cost-of-living increase will be a one cent (1¢) per hour increase for each .5 of a point rise in the Consumer's Price Index by using the dates as set forth in this Article.

(a) For the cost-of-living increase on April 1, 1981, the base for the twelve (12)-month period (March, 1980, through February, 1981) will be the index for February, 1980, as reported in March, 1980. There will be no increase on April 1, 1981, unless there has been a nine percent (9%) rise in the Consumer's Price Index on such base, and any increase on this date will be computed by excluding initially said nine percent (9%).

(b) For the cost-of-living increase on April 1, 1982, the base for the second twelve (12)-month period (March, 1981, through February, 1982) will be the index for February, 1981, as reported in March, 1981. There will be no increase on April 1, 1982, unless there has been a nine percent (9%) rise in the Consumer's Price Index on such base, and any increase on this date will be computed by excluding initially said nine percent (9%).

Section 3. Any cost-of-living increase required under this Article will be paid on the standard hourly base rate required by this Contract and will be paid for all purposes.

LABOR CENTER NOTES:

(1) This clause has good specification of Index, and of the base periods for each increase; and good requirement in Sec. 3 to add to the base rates so the employee is paid "for all purposes." It is not clear, however, that the language of Sec. 3 requires COLA amounts to be "folded in"--that is, added permanently to the base rates.

(2) The 9% corridor for each adjustment period will eliminate a lot of COLA payments. The average CPI-W increase for 1979 was 11.5%

(217.7 minus 195.3 equals 22.4 divided by 195.3 equals .115), and for 1980 was 13.5% (247.0 minus 217.7 equals 29.3 divided by 217.7 equals .135). Therefore, in both of those years the deduction of 9% would have left very little in the way of any COLA.

(3) There is no standard language here giving protection against changes or corrections or revisions of the Index.

.

SAMPLE CLAUSE 7

INT'L MOLDERS/DE LAVAL EFF. 1975

COST OF LIVING ADJUSTMENT

Paragraph 80

Effective July 1, 1976:

During the remaining term of the Agreement there will be a Cost of Living Adjustment as set forth below:

Price Index used will be the Consumer Price Index for Urban Wage Earners and Clerical Workers, All Cities, All Items (1967 = 100) published by the U.S. Dept. of Labor, Bureau of Labor Statistics.

"Consumer Price Index Base" is the CPI for the month of May 1976 (being that CPI which customarily would be published by BLS in mid June 1976).

"Adjustment Dates" are the first pay period next following the first of the month in October 1976, January 1977, April 1977, July 1977, October 1977, January 1978 and April 1978.

Change in the Consumer Price Index will be measured on a quarterly basis beginning with the CPI base for the month of May 1976 and any subsequent adjustments will be made on the adjustment dates set forth herein.

Effective on each adjustment date a Cost of Living Adjustment equal to one cent (01¢) per hour for each .4 of a point change in the CPI shall be payable to each non-probationary employee for all hours actually worked.

The Cost of Living Adjustment shall be an "add-on" and shall not be a part of the individual employee's hourly rate. Such Adjustment shall be payable only for hours actually worked and shall be included in the calculation of overtime premium but shall not be part of the employee's pay for any other purpose and shall not be used in the calculation of any other pay, allowance or benefit.

The maximum payable in each of the two applicable adjustment periods will be as follows:

July 1, 1976 through June 30, 1977--\$.17 per hour

July 1, 1977 through June 30, 1978--\$.22 per hour

The Cost of Living Adjustment for the adjustment period July 1, 1976 through June 30, 1977 will be added to the employee's personal hourly rate effective the pay period next following July 1, 1977 up to a maximum of \$.17 per hour.

In the event the appropriate Bureau of Labor Statistics Consumer Price Index is not published on or before the beginning of the effective payroll period, any adjustment required will be made effective at the beginning of the first payroll period after publication of the Bureau of Labor Statistics Consumer Price Index.

No adjustments, retroactive or otherwise, shall be made due to any revision which may later be made in the published figures for the Bureau of Labor Statistics Consumer Price Index for any base month.

Should the Consumer Price Index, in its present form and on the same basis as the last index published, become unavailable, the parties shall attempt to adjust this section, or, if agreement is not reached, request the Bureau of Labor Statistics to provide the appropriate conversion or adjustment which shall be applicable as of the appropriate adjustment date and thereafter.

LABOR CENTER NOTES:

(1) This clause has good specification of the Index, and base period, and quarterly adjustment dates. But what rationale led to the exclusion of probationary employees, and also to the exclusion of any COLA amounts for holiday and vacation pay, or for "any other purpose" (except overtime pay)?

(2) Good protection against changes or corrections or revisions of the Index.

(3) This clause specifically provides only for an ADD-ON to base rates with respect to the quarterly adjustment amounts (in para. 7); but it specifically provided for a FOLD-IN of the maximum annual amounts, on an annual basis (in para. 9).

(4) What is the impact of the 17¢ cap for the period 7-1-76/6-30-77, and the 22¢ cap for the period 7-1-77/6-30-78?

Oct 1976:	173.3	
May 1976	169.2	
	<u>4.1</u>	
	.4	= 10¢ as of Oct 1976

$$\begin{array}{r} \text{Jan 1977: } 175.3 \\ \text{May 1976 } 169.2 \\ \hline 6.1 \\ .4 \end{array} = 15\text{¢ as of Jan 1977}$$

$$\begin{array}{r} \text{Apr 1977: } 179.6 \\ \text{May 1976 } 169.2 \\ \hline 10.4 \\ .4 \end{array} = 26\text{¢ as of Apr 1977}$$

The cap of 17¢ takes away 9¢ of this COLA; but the maximum 17¢ amount is folded into the base rates.

$$\begin{array}{r} \text{Jul 1977: } 182.6 \\ \text{May 1976 } 169.2 \\ \hline 13.4 \\ .4 \end{array} = 34\text{¢ as of July 1977}$$

$$\begin{array}{r} \text{Oct 1977: } 184.5 \\ \text{May 1976 } 169.2 \\ \hline 15.3 \\ .4 \end{array} = 38\text{¢ as of Oct 1977}$$

$$\begin{array}{r} \text{Jan 1978: } 187.1 \\ \text{May 1976 } 169.2 \\ \hline 17.9 \\ .4 \end{array} = 45\text{¢ as of Jan 1978}$$

But only 1¢ of this is due before the second year maximum of 22¢ is reached.

$$\begin{array}{r} \text{Apr 1978: } 191.4 \\ \text{May 1976 } 169.2 \\ \hline 22.2 \\ .4 \end{array} = 56\text{¢}$$

The loss in COLA payments due to the maximum amount of 17¢ is 9¢ in the first year; the loss due to the maximum amount of 39¢ is 17¢ in the second year.

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SAMPLE CLAUSE 8

UAW/GENERAL MOTORS EFF. 1976

(101)(d) Cost of Living Allowance. In establishing the combined United States-Canada Consumer Price Index (hereafter referred to as the Combined Consumer Price Index) for the purpose of determining a uniform cost of living allowance as hereinafter provided, the parties recognize the possibility that the official price index of either country may vary from the Combined Consumer Price Index during the period of this and subsequent agreements; and, as part of the consideration for establishing the Combined Consumer Price Index, the parties agree they will not seek any change in wages, benefits or any other term or condition of

employment by reason of any differences in the movement in the official price index in either the United States or Canada as compared to the movement of the Combined Consumer Price Index established herein.

Each employee covered by this Agreement shall receive a Cost of Living Allowance in accordance with the provisions of Paragraphs (101)(g) and (101)(h).

It is agreed that only the Cost of Living Allowance will be subject to reduction so that if a sufficient decline in the cost of living occurs, employees will immediately enjoy a better standard of living. Such an improvement will be an addition to the improvement factor increases provided for in Paragraph (101)(b).

(101)(e) The Cost of Living Allowance provided for in Paragraph (101)(d) shall be added to each employee's hourly wage rate (or straight time hourly earned rate, in the case of employees on an incentive job classification) and will be adjusted up or down as provided in Paragraphs (101)(g) and (101)(h).

(101)(f) The Cost of Living Allowance will be determined in accordance with changes in the Combined Consumer Price Index (1967=100). The Combined Consumer Price Index will be calculated by the parties using the Consumer Price Index for Urban Wage Earners and Clerical Workers (United States City Average) published by the Bureau of Labor Statistics (1967=100) for the United States and the Consumer Price Index published by Statistics Canada (1971=100) for Canada, and will be calculated in accordance with the Letter of Understanding signed by the parties.

(101)(g) Effective with the effective date of this Agreement but after the application of the wage increases provided in Paragraph (101)(a), \$1.09 shall be deducted from the \$1.14 Cost of Living Allowance in effect immediately prior to that date and \$1.09 shall be added to the base wage rates (minimum, intermediary and maximum) for each day work classification in effect on that date, except that said \$1.09 shall not be taken into account for incentive

pay calculation purposes. In the case of employees on an incentive basis of pay, the \$1.09 shall be added to the earned rate of such employees. Thereafter during the period of this Agreement, adjustments in the Cost of Living Allowance shall be made at the following times:

<u>Effective Date of Adjustment:</u>	<u>Based Upon Three- Month Average of The Combined Consumer Price Indexes For:</u>
<u>December 6, 1976</u>	<u>August, September, October, 1976</u>
<u>First pay period beginning on or after: March 1, 1977 and at three-calendar-month intervals thereafter to June 1, 1979.</u>	<u>November, December 1976 and January 1977 and at three-calendar- month intervals there- after to February, March and April, 1979.</u>

In determining the three-month average of the Indexes for a specified period, the computed average shall be rounded to the nearest 0.1 Index Point.

In no event will a decline in the three month average Combined Consumer Price Index below 169.0 provide the basis for a reduction in the wage scale by job classification.

(101)(h) The amount of the Cost of Living Allowance shall be five cents (5¢) per hour effective with the effective date of this Agreement and ending December 5, 1976. Effective December 6, 1976 and for any period thereafter as provided in Paragraphs (101)(d) and (101)(g) the Cost of Living Allowance shall be in accordance with the following table except as otherwise provided herein:

<u>Three Month Average Combined Consumer Price Index</u>	<u>Cost of Living Allowance</u>
169.0 or less	None
169.1-169.3	1¢ per hour
169.4-169.6	2¢ per hour
169.7-169.9	3¢ per hour
170.0-170.2	4¢ per hour
170.3-170.5	5¢ per hour
170.6-170.8	6¢ per hour

170.9-171.1	. . . . .	7¢ per hour
171.2-171.4	. . . . .	8¢ per hour
171.5-171.7	. . . . .	9¢ per hour
171.8-172.0	. . . . .	10¢ per hour

And so forth with 1¢ adjustment for each 0.3 change in the Average Index for the appropriate three months as indicated in Paragraph (101)(g).

In the event the Corporation makes lump sum payments to certain retirees and surviving spouses as provided in a letter dated November 22, 1976, from the Union to the Corporation, the following provisions shall become effective. In each adjustment period during the six three-month periods beginning June 6, 1977, and ending December 3, 1978, the amount of cost of living allowance due in each three-month period shall be reduced by one cent (1¢), up to a cumulative reduction during the sixth three-month period of six cents (6¢).

With respect to adjustments on or after December 4, 1978, the amount of cost of living allowance would be computed in accordance with this Paragraph (101)(h) without regard to the reductions provided herein.

(101)(i) The amount of any Cost of Living Allowance in effect at the time shall be included in computing overtime premium, night shift premium, vacation payments, holiday payments, call-in pay, bereavement pay, jury duty pay, paid absence allowance and short term military duty pay.

(101)(j) In the event that either the Bureau of Labor Statistics or Statistics Canada does not issue the appropriate Consumer Price Indexes on or before the beginning of one of the pay periods referred to in Paragraph (101)(g) any adjustments in the Cost of Living Allowance required by such appropriate indexes shall be effective at the beginning of the first pay period after receipt of the Indexes.

(101)(k) No adjustments, retroactive or otherwise, shall be made due to any revision which may later be made in the published figures used in the calculation of the Combined Consumer Price Index for any month or months specified in Paragraph (101)(g).

(101)(1) The parties to this Agreement agree that the continuance of the Cost of Living Allowance is dependent upon the availability of the monthly Consumer Price Indexes published by the Bureau of Labor Statistics and Statistics Canada in their present form and calculated on the same basis as the Indexes for August, 1976 unless otherwise agreed upon by the parties. If the Bureau of Labor Statistics or Statistics Canada changes the form or the basis of calculating their respective Consumer Price Index, the parties agree to request such agency to make available, for the life of this Agreement, a monthly Consumer Price Index in its present form and calculated on the same basis as the Index for August, 1976; provided, however, that the Index for Urban Wage Earners and Clerical Workers (United States City Average, 1967=100), as revised by the Bureau of Labor Statistics based on the 1972-73 Survey of Consumer Expenditures, and the Canadian Consumer Price Index (1971=100) based on the 1974 Family Expenditures Survey, shall be used in the computations for any month for which such Indexes are officially published.

ATTACHMENT ENGINEERING METHOD OF ROUNDING

The following rules of rounding shall apply to the determination of the Combined Consumer Price Index:

1. If the leftmost of the digits discarded is less than 5, the preceding digit is not affected. For example, when rounding to four digits, 130.646 becomes 130.6.
2. If the leftmost of the digits discarded is greater than 5, or is 5 followed by digits not all of which are zero, the preceding digit is increased by one. For example, when rounding to four digit, 130.557 becomes 130.6.
3. If the leftmost of the digits discarded is 5, followed by zeros, the preceding digit is increased by one if it is odd and remains unchanged if it is even. The number is thus rounded in such a manner that the last digit retained is even. For example, when rounding to four digits, 130.5500 becomes 130.6 and 130.6500 becomes 130.6.

LABOR CENTER NOTES:

(1) This clause makes interesting use of a combination of U.S. and Canadian Indexes, specifying each. Provides that cost of living

allowance amounts (but not base rates) can be adjusted down if the combined Index falls sufficiently (but not if it falls below the base period Index). Covers employees in incentive job classifications.

(2) Provides for folding into base rates \$1.09/hr of the total amount of \$1.14/hr. of the cost of living allowance in effect at the expiration of the prior agreement. (The remaining 5¢/hr. becomes the COLA amount from the beginning of this contract until December 6, 1976, when the first COLA under this contract is due.)

(3) The quarterly adjustment formula is 1¢ for each .3 change in the combined Index; however, there is a provision that 1¢ of the total COLA amount per quarter, for a period of 6 quarters (or a total of 6¢/hr. maximum) will be deducted from the allowance if another provision of the contract is invoked, requiring special "lump-sum" payments for retirees. What is happening here is that the active members are actually sharing their COLA with retirees, to the stated limit.

(4) The adjustment formula is based on the difference between the base period Index and each three-month average of the combined Index, and not on the more usual method of using the increase in the Index measured from the base period to the end of each three month adjustment period. This may result in a slightly lower total adjustment amount over the entire time period of the clause.

(5) Note the long list of payments other than base rates which must be included for cost of living increases, in para. 101(i).

(6) There is good protective language in case of failure to issue appropriate Indexes, or revisions in the Indexes, or change in form or method of calculating the Indexes.

(7) The clause ends by specifying the agreed upon rules for rounding in determinations of the combined Index numbers.

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SAMPLE CLAUSE 9

UNITED PUBLIC EMPLOYEES/BARTD EFF. 1976

34. COST OF LIVING

All employees covered by this Agreement shall be covered by the provisions for a cost of living increase as set forth in this Section.

The basic wage rates as contained in the Agreement shall not be reduced by application of this Cost of Living provision. In addition to the wage rates contained in this Agreement, all employees shall be paid a cost of living to be determined on the basis of the new series Consumer Price Index (United States Average, revised basis 1967 = 100), published by the Bureau of Labor Statistics, United States Department of Labor, in the manner described in this Section, (hereafter referred to as the "Index").

The Index for the month of May 1976 shall be the Base Index. The cumulative cost of living adjustment shall be in an amount of a percentage of the basic wage rate in effect July 1, 1976 in the first year, July 1, 1977 in the second year and July 1, 1978 in the third year. Such succeeding base rates shall include cost of living allowances granted during the preceding year which shall be added to and become a part of the base wage rate. The percentage change in such rates shall be equivalent to the incremental percentage change in the Index for each quarter, rounded to the nearest cent.

Quarterly adjustment shall be made on the following dates: October 1, 1976; January 1, 1977; April 1, 1977; July 1, 1977; October 1, 1977; January 1, 1978; April 1, 1978, July 1, 1978; October 1, 1978; January 1, 1979; April 1, 1979; June 30, 1979.

The first adjustment, payable commencing the month of October 1976, shall be made on the basis of the movement of the Index published for the month of August 1976, over the Index published for the month of May 1976. The adjustment payable commencing the month of January shall be based on the Index published for the month of November; adjustment payable commencing the month of April shall be based on this Index published for the month of February; the adjustment commencing in the month of July (and June 30, 1979) shall be based on the Index published for the month of May.

The resulting Cost of Living Allowance shall be used in the computation of pensions, straight time and overtime pay exactly as though the wage rates had been changed by the allowance. However, the allowance shall not be added to the basic wage rates, but only to each employee's earnings, except on the anniversary date of the Agreement in the second and third year. In computing adjustments due on any July 1, the first step shall be to add the previous accumulated cost of living allowance for the prior year to the base before calculating the percentage adjustment due.

LABOR CENTER NOTES:

(1) This clause became the central issue in the six-week BART strike of late 1979. The union was not able to retain the clause in this form in the final settlement of the strike.

(2) It was clear in 1976 when this clause was negotiated that the Index to be used was CPI-W. But now this would have to be specified, or there could be confusion with CPI-U.

(3) Para. 3 of this clause provides for annual fold-in of the quarterly COLA amounts, on July 1 of each year of the three-year contract. In other words, whatever has accrued in each quarterly COLA is added to the base rates each July 1. This is the feature of the BART clause that was identified by the press during the strike as "pyramiding"-- As if it would permit an employee to obtain more COLA payments than the increase in the cost of living actually justified. In fact, it does not permit this. Instead, it simply permits an employee to keep from falling further behind the increase in the cost of living than s/he would fall if s/he did not have an annual fold-in provision in the contract. Therefore, BART employees under this clause once kept up with more cost of living increase than most other employees were able to keep up with. This fold-in provision is equitable, it is justified, and it is recommended. But since BART management beat it down in the 1979 strike, it has been an extremely difficult provision for any union to negotiate in any COLA clause anywhere. To repeat, it does not actually pyramid anything. That is just the usual kind of press description of a clause disputed in a strike, and is as usual adverse to the economic interests of workers, and especially union workers.

(3) Note that this clause specifies a straight percentage adjustment, not requiring any points-of-change formula. This approach is highly recommended, and the language here can be used as a model of clarity, simplicity, and effectiveness. In fact, this language was contested by BART management in several key arbitrations and was successfully defended by the union before the clause was compromised after management challenged and weakened the union in strike action.

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SAMPLE CLAUSE 10

FROM A BASIC STEEL INDUSTRY AGREEMENT EFF. 1974

M. Cost-of-Living Adjustment

1. For purposes of this Subsection M:

a. "Consumer Price Index" refers to the "Consumer Price Index for Urban Wage Earners and Clerical Workers--United States--All Items (1967=100)" published by the Bureau of Labor Statistics, U.S. Department of Labor.

b. "Consumer Price Index Base" refers to the Consumer Price Index for the month of December 1973 (published in January 1974 as 138.5).

c. "Adjustments Dates" are August 1 and November 1 of 1974; February 1, May 1, August 1, and November 1 of 1975 and 1976; and February 1 and May 1 of 1977.

d. "Change in the Consumer Price Index" is defined as the difference between (i) the Consumer Price Index Base and (ii) the Consumer Price Index for the second calendar month next preceding the month in which the applicable Adjustment Date falls.

e. "Cost-of-Living Adjustment" is calculated as below and, except as is provided in 4, will be payable for the three-month period commencing with the Adjustment Date.

2. Effective on each Adjustment Date, a Cost-of-Living Adjustment equal to 1¢ per hour for each full .3 of a point change in the Consumer Price Index shall become payable for all hours actually worked and for any reporting allowance credited before the next Adjustment Date. However, such Adjustment shall be reduced by an amount equal to the sum of all prior Adjustments, if any, which shall have been included in the Standard Hourly Wage Scale Rates for nonincentive jobs and in the Hourly Additives for incentive jobs pursuant to the provisions of 4.

3. Until included in the rates pursuant to the provisions of 4, the Cost-of-Living Adjustment shall be an "add-on" and shall not be part of the employee's Standard Hourly Wage Scale Rate. Until so included in the rates, such Adjustment shall be payable only for hours actually worked and for reporting allowance and shall be included in the calculation of over-time premium but shall not be part of the employee's pay for any other purpose and shall not be used in the calculation of any other pay, allowance, or benefit.

4. Annual Cost-of-Living Roll In--In order that the annual rise in the Cost-of-Living Adjustment may be fully reflected in the wage scale, effective August 1, 1975 and again August 1, 1976, an amount equal to the amount of

the Cost-of-Living Adjustment then payable and in effect shall be included in the Standard Hourly Wage Scale Rates for nonincentive jobs and in the Hourly Additives for incentive jobs. Such inclusion shall be treated for all purposes, except as provided in the Pension Agreement, as a general wage increase commencing on each of said dates.

5. Should the Consumer Price Index, in its present form and on the same basis (including composition of the "Market Basket" and "Consumer Sample") as the last Index published prior to August 1, 1974, become unavailable, the parties shall attempt to adjust this Subsection M or, if agreement is not reached, request the Bureau of Labor Statistics to provide the appropriate conversion or adjustment which shall be applicable as of the appropriate Adjustment Date and thereafter. The purpose of such conversion shall be to produce as nearly as possible the same result as would have been achieved using the Index in its present form.

6. If the Consumer Price Index falls below the Consumer Price Index Base, there shall be no Cost-of-Living Adjustment.

7. The Cost-of-Living Schedule below sets out the operation of the foregoing provisions.

Cost of Living Schedule

The Consumer Price Index for Urban Wage Earners and Clerical Workers--United States--All Items (1967=100) published by the Bureau of Labor Statistics, United States Department of Labor for the month of December 1973 is 138.5 and is used as a base:

BLS Consumer Price Index	Cost of Living Adjustment Per Hour
137.7 or less	None
138.8 - 139.0	1¢
139.1 - 139.3	2¢
139.4 - 139.6	3¢
139.7 - 139.9	4¢
140.0 - 140.2	5¢
140.3 - 140.5	6¢
140.6 - 140.8	7¢
140.9 - 141.1	8¢

141.2 - 141.4	9¢
141.5 - 141.7	10¢
141.8 - 142.0	11¢
142.1 - 142.3	12¢

and continuing thereafter with a one cent per hour change for each full .3 of a point change in the Index.

For the three-month period commencing with each Adjustment Date, the Cost-of-Living Adjustment is determined by the above schedule using the Consumer Price Index for the applicable month as specified in the following list:

<u>Adjustment Date</u>	<u>Applicable Month</u>
August 1, 1974	June 1974
November 1, 1974	September 1974
February 1, 1975	December 1974
May 1, 1975	March 1975
August 1, 1975	June 1975
November 1, 1975	September 1975
February 1, 1976	December 1975
May 1, 1976	March 1976
August 1, 1976	June 1976
November 1, 1976	September 1976
February 1, 1977	December 1976
May 1, 1977	March 1977

This Agreement provides that effective August 1, 1975 and again August 1, 1976 an amount equal to the amount of the Cost-of-Living Adjustment then payable shall be included in the Standard Hourly Wage Scale Rates for nonincentive jobs and in the Hourly Additives for incentive jobs ("roll in"). Therefore, after August 1, 1975, in calculating Cost of Living Adjustments subtract the total "roll in" then in effect from the amount determined by using the above schedule.

LABOR CENTER NOTES:

(1) Contains good specification of the Index, the Base Period, the adjustment intervals, and the payment dates.

(2) The clause carefully distinguishes between the add-on and the fold-in. Paragraph 4 specifies two annual fold-in dates; paragraphs 2 and 3 make it clear that all COLA amounts payable but not yet folded into base rates are applicable only to hours actually worked, and for

"reporting allowances," and for calculation of overtime premium. This would clearly exclude COLA application to vacation and holiday pay, and to any other reimbursed time not actually worked (sick leave, jury duty, any paid leave of absence like funeral leave, etc.). However, these exclusions may have been accepted by the union in bargaining for this clause, in exchange for the fold-ins. If so, it was a good exchange from the union's point of view, because not so much is excluded from the quarterly adjustments, but everything is included in the two annual fold-ins.

(3) By using the "Cost of Living Schedule" (after paragraph 7) and also by specifying the applicable month to use for each adjustment date (in the final table of this clause), everything here is made very specific--even though it takes a lot of contract pages to do so.

(4) There are two further sources containing excellent analysis of this clause, and these will be sent to readers on request: (a) The third publication in the Monograph Series of the California Public Employee Relations Program, entitled "Cost of Living Escalators in the Public Sector," by Marla Taylor, pp. 24-26 (Institute of Industrial Relations, Univ. of California, Berkeley); (b) "United States Steel Corporation and United Steelworkers of America," U.S. Department of Labor, Bureau of Labor Statistics, Supplement to Bulletin 1814 (Washington, D.C.: September 1975).

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SAMPLE CLAUSE 11

RETAIL STORE EMPL./DISCOUNT STORE AGREEMENT EFF. 1971

A.8.3. COST OF LIVING: A cost-of-living increase shall be calculated annually effective the thirty-first of July based upon the May-to-May figures published in June by the U.S. Bureau of Labor Statistics, Consumer Price Index for San Francisco 1957-59=100. It is the intent of the parties that the increase, if any, due under this provision shall be the difference between each year's wage increment as set forth above and the rise in the cost of living for each year. For all employees the percentage rise in the cost-of-living shall be applied. The resultant cost-of-living increase, if any, shall be added in equal one-half ($\frac{1}{2}$) cents per hour to all apprentice and experienced clerk rates, and the new rate schedule shall constitute the base rates for that year.

LABOR CENTER NOTES:

(1) This clause provides excellent protection against runaway inflation by providing an annual offset adjustment, on a straight percentage basis, to be paid in case this clause results in a greater increase than already negotiated in deferred wage adjustments.

(2) Just as any amounts negotiated in this contract as deferred wage increases are "folded-in" to base rates when payable (although that term is not usually used for deferred increases), this clause provides that any COLA amounts that may become due must also be folded-in to the base rates, in the same way and at the same time. No one would call this "pyramiding," but it is exactly the same principle discussed above in the case of the 1976 BART clause--and identified in that case as "pyramiding."

(3) In the next negotiation of this contract, the S.F. Index with base of 1957-59 should be replaced by the Index with base of 1967. A switch to the national CPI-W would be even better. There is no special problem in either switch, if there is no change in use of the straight percentage adjustments.

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SAMPLE CLAUSE 12

IBEW/RCA CORP. EFF. 1973

Section WAGES. There shall be a general wage increase for all employees covered by this National Agreement. Such general wage increase shall be as set forth in each wage Rate schedule "A" attached to and made a part of the respective Supplementary Local Agreements. Further general increases of \$.16 per hour for all employees shall be granted on December 2, 1974, and December 1, 1975, and these increases will be reflected in subsequent Wage Rate Schedules to be attached to and made a part of the respective Supplementary Local Agreements.

In addition to the above general wage increases, the Company will grant cost of living adjustments for all employees on the dates shown below in the amount of one cent (1¢) per hour for each full three-tenths of one percent (0.3%) by which the National Consumer Price Index Base 1967 = 100, as published by the U.S. Bureau of Labor Statistics, increases in the applicable Measurement Period up to the maximums shown in the Adjustments Ranges below:

<u>Effective Date</u>	<u>Measurement Period</u>	<u>Adjustment Range</u>
6/3/74	November 1973 thru April 1974	Up to 5¢ per hour
6/2/75	April 1974 thru April 1975	Up to 14¢ per hour with a minimum of 10¢ per hour

6/7/76 April 1975 Up to 12¢ per hour
thru April 1976

Any such cost of living adjustment will be reflected in subsequent Wage Rate Schedules to be attached to and made a part of the respective Supplementary Local Agreements.

No change shall be made in any cost-of-living adjustment as a result of any revision that may be made, after the effective date of each such cost-of-living adjustment in the published figures of the Index for any month for which such adjustment shall have been determined.

In the event the Consumer Price Index outlined above shall be discontinued, changed or otherwise becomes unavailable during the term of this agreement, and if the Bureau of Labor Statistics issues a conversion table by which changes in the present Index can be determined, the parties agree to accept such conversion table. If no such table is issued, the parties will promptly undertake negotiations solely with respect to agreeing upon a substitute formula for determining a comparable cost-of-living adjustment. Any such conversion table or substitute formula will, however, retain the same maximum amount limitations set forth above.

LABOR CENTER NOTES:

- (1) Clause needs better identification of the CPI (W or U?).
- (2) Contains caps for all adjustment periods, and also a minimum increase amount for the second adjustment period.
- (3) It is interesting that the COLA amounts that will accrue under this clause are to be added to base rates in exactly the same manner as the deferred wage increases mentioned in the first paragraph of this clause. The "fold-in" language is the same in both cases. This appears to be a full fold-in, although we don't know from this clause exactly what "subsequent" means, and that could be troublesome if the employer wants to make it troublesome.
- (4) Contains good protective language in the event of changes or unavailability of the Index, and for use of conversion procedure.
- (5) Suggested exercise: Figure out how the caps in the clause affect the COLA amounts that would have been received without them. Get the appropriate Index numbers from the chart on page 15, and refer back to Sample Clause #7 if you need to review the method of calculation.

SAMPLE CLAUSE 13

On April 1 of 1976 the Consumer Price Index for Urban Wage Earners and Clerical Workers--Annual Average--San Francisco-Oakland Metropolitan Area California--all items (57-59=100) (the "Index") published by the U.S. Department of Labor, Bureau of Labor Statistics, as of December 1975 shall be compared with said Index as of December 1974. In the event said Index as of December 1975 is higher than said Index for December 1974, each rate set forth above in this Appendix B shall be increased effective April 1, 1976 for the 1976-77 contract year by multiplying each wage rate set forth above in this Appendix B by a fraction, the numerator of which is the Index for December 1975 and the denominator of which is the Index for December 1974. There shall be no reduction in rates by operation of this provision.

If, in the future, said Index shall be changed so that the base year differs from that used as of the date of the commencement of the term hereof, it shall be converted in accordance with the conversion factor published by the U.S. Department of Labor, Bureau of Labor Statistics. In the event said Index is discontinued or revised during the term of this Agreement, such other governmental Index or computation with which it is replaced, shall be used in order to obtain substantially the same result that would be obtained if said present Index had not been discontinued or revised.

LABOR CENTER NOTES:*

(1) This is a good example of the simplicity of a straight percentage increase approach, and the use of this ratio of the appropriate Index numbers from one December to the next is about the simplest way of applying this percentage method.

** Sample Clauses 13-18 are reproduced from the third publication in the Monograph Series of the California Public Employee Relations Program, entitled "Cost of Living Escalators in the Public Sector," by Marla Taylor (Institute of Industrial Relations, University of California, Berkeley). Notes and comments on these clauses are those of the authors of this publication and not those of Ms. Taylor.*

(2) The lag from the December adjustment period to April, before any COLA pay is actually due cannot be justified, except from the employer's viewpoint. The appropriate data would be available in January, and the COLA increase accruing from this adjustment period would normally be due the first pay period in February.

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SAMPLE CLAUSE 14

4. All employees covered by this Agreement shall be covered by the provisions of a cost-of-living allowance as follows:

a. The amount of the cost-of-living allowance shall be determined as provided below on the basis of the "Consumer's Price Index for Moderate Income Families in Large Cities, New Series (All Items) published by the Bureau of Labor Statistics U.S. Department of Labor (1957-1959=100)" and referred to herein as the "Index."

b. The first cost-of-living allowance shall be effective December 1, 1974, based on the percentage increase in the Index figure from October, 1973 to October, 1974. That percentage figure will be applied to the weighted average hourly rate, as of November 22, 1974, of regular employees covered by this Agreement. The resultant cents per hour, with a maximum of 15¢, shall be the cost-of-living allowance effective December 1, 1974.

c. The second cost-of-living allowance shall be effective June 1, 1975, based on the percentage increase in the Index figure from April, 1974 to April, 1975. That percentage figure will be applied to the weighted average hourly rate, as of May 23, 1975, of regular employees covered by this Agreement. The resultant cents per hour, with a maximum of 20¢, shall be the cost-of-living allowance effective June 1, 1975.

d. No adjustments, retroactive or otherwise, shall be made in the amount of the cost-of-living allowance due to any revision which later may be made in the published figures for the Index for any month on the basis of which the allowance has been determined. The cost of living allowance shall not become a fixed part of the base rate for any classification.

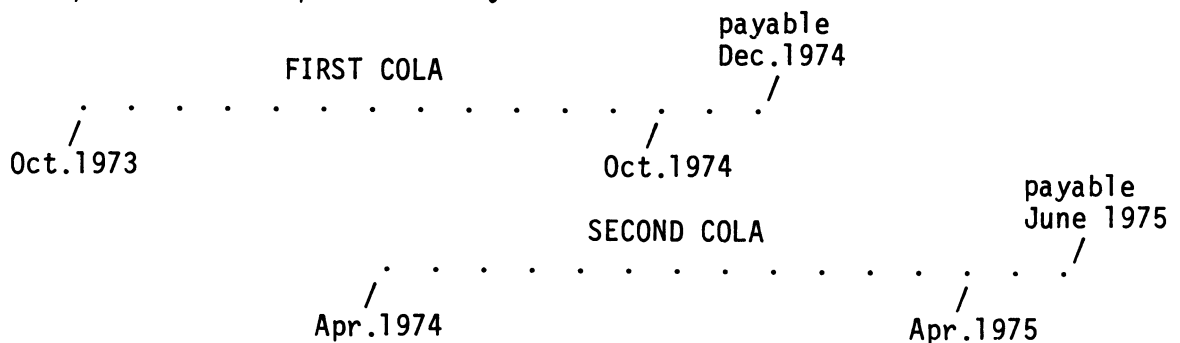
e. A decline in the Index shall not result in a reduction of classification base rates. Continuance of the cost-of-living allowance shall be contingent upon the continued availability of official monthly Bureau of Labor Statistics Price Index in its present form and calculated on the same basis as the Index for 1965 unless otherwise agreed upon by the parties.

LABOR CENTER NOTES:
(see footnote p.75)

(1) The analysis followed in this workbook has stressed the following concepts: (a) that the point system formula should be carefully related to the weighted average hourly rate of the unit; and (b) that the percentage adjustment formula has an advantage both in simplicity, and in being applicable directly to any number of different job rates.

This clause uses an uncommon variation, by applying the percentage adjustment formula to the weighted average hourly rate of the unit. The intent may be to utilize the percentage method for its simplicity, but to apply it in a way that will tend to reduce rate differentials in the bargaining unit.

(2) This clause is unique also in the fact that the two adjustment periods overlap. Here they are:



In bargaining for this clause, perhaps there was a trade-off between the caps of 15¢ and 20¢ (caps always being of special interest to employers) and the six-month overlap in the adjustment periods (which is useful to the employees, because increases in the cost of living during this overlap period would be paid for twice.)

(3) Suggested exercise: If there was such a trade-off, who got the best of the deal? Probably the employer, but to answer the question you would have to figure out what was lost because of the caps, and what may have been gained (perhaps without even knowing it) from the overlap. If you can come up with the answer in half an hour, you are already an expert on COLA clauses, and do not need to study any more sample clauses.

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SAMPLE CLAUSE 15

The monthly salaries effective July 1, 1974, through June 30, 1977, for employees in this unit, shall be established in accordance with the City Charter, provided that in the event the U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index for the Los Angeles-Long Beach area for the months of March, 1974, March, 1975, or March 1976, exceeds such index for March of the preceding year by a larger percentage than the percentage increase in salary for any class of this unit which would result on July 1 of any such year from the application of the City Charter (including all retroactive adjustments mandated by said [Charter provision]), then the salary for members of such class shall be raised by that higher percentage figure effective July 1 of such year, notwithstanding the arbitrary spread that such raises may create between the salary range or steps for such classes.

LABOR CENTER NOTES:
(see footnote p.75)

(1) This is another example of good protection against runaway inflation (see also Sample Clause #11). Whatever the City Charter procedure may be for adjusting salaries as of July 1 of each year, this clause will improve on it if it is not adequate to keep up with the rate of inflation.

(2) It is not clear that any straight percentage increases that may result from this clause would create an "arbitrary spread" between salary ranges (or steps within salary classes). In our earlier comparison of the point system and the percentage system, we concluded that the percentage increases of our example did not lead to this kind of distortion (see p. 44; such distortion does become a problem when the point system is used).

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SAMPLE CLAUSE 16

All employees covered by this Agreement shall be covered by the provisions for a cost-of-living allowance as set forth in this Section.

The amount of the cost-of-living allowance shall be determined and redetermined as provided below on the basis of the "Consumers' Price Index for Moderate Income Families in Large Cities, New Series (All Items) published by the Bureau of Labor Statistics, U.S. Department of Labor (1967=100)" and referred to herein as the "Index."

The first cost-of-living allowance shall be effective the first day of October, 1975, based on the difference between the Index figure of September, 1975, and the Index figure of August, 1976.

Adjustments in the cost-of-living allowance shall be made on the basis of One Cent (1¢) for each .4 change in the Index.

There shall be a minimum of Twenty Cents (20¢) payable under each of the two allowances.

LABOR CENTER NOTES:
(see footnote p. 75)

(1) This is an example of a clause which uses an annual adjustment interval containing only 12 months, instead of 13. If each adjustment period were given as August to August, as it should be (instead of September to August), the difference in the amount of COLA in the first year would be 32¢ vs. 28¢; in the second year it would be 23¢ vs. 21¢.

(2) Suggested exercise: Refer back to p. 15 to get the Index numbers, and do the arithmetic yourself. Then you will be sure that you don't make the same simple mistake in your contract.

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SAMPLE CLAUSE 17

All employees covered by this Agreement shall be covered by the provision for a Cost-of-Living Allowance as set forth herein.

The amount of the Cost-of-Living Allowance shall be determined and redetermined as provided below on the basis of the "Consumers" Price Index for Moderate Income Families in Large Cities, New Series (All Items), published by the Bureau of Labor Statistics, U.S. Department of Labor (1967=100) and referred to herein as the "Index."

The first Cost of Living shall be effective the first pay period beginning on or after March 1, 1976 based on the difference in excess of a 3.0 point corridor that the January 1976 Index figure exceeds the January 1975 Index figure.

Adjustments in the Cost-of-Living Allowance shall be made on the basis of changes in the Index as follows:

First . . .	.3-1¢	Fourth . . .	.4-4¢
Second . .	.4-2¢	Fifth . . .	.3-5¢
Third . . .	.3-3¢	Sixth . . .	.4-6¢

and so forth, with one cent (1¢) per hour adjustments thereafter for each .3 or .4 point change in the Index as set forth above.

The Cost-of-Living Allowance, as provided for above, shall not become a fixed part of the base rates for any classification.

A decline in the Index below the January 1975 figure shall not result in any reduction in the classification base rates.

LABOR CENTER NOTES:
(see footnote p.75)

(1) This annual adjustment clause is unique primarily for the use of a 3.0 point corridor. However, it also uses an alternating .3/.4 formula for each 1¢ adjustment.

(2) Suggested exercise: As of January 1975, what base rate of pay would be correctly adjusted by this clause to keep up with increases in the cost of living during that year? (You can use .35 in the equation; refer back to Sample Clause 4 if you need to review the algebra.)

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SAMPLE CLAUSE 18

The City Manager agrees to present to the City Council early enough for an effective date of July 1, 1975, an amendment to the salary ordinance providing for a 6.0 percent across-the-board increase for all unit employees, provided the U.S. Department of Labor, Bureau of Labor Statistics, Los Angeles-Long Beach Area, Cost of Living Index (C.P.I.) annual twelve month rate of increase from April 1974 to April 1975 is not less than 3.0 percent or more than 9.0 percent. If this Consumer Price Index is less than 3.0 percent or more than 9.0 percent, the parties, or either of them, shall have the right to open negotiations between the City and the Association on the issues of salaries only.

LABOR CENTER NOTES:
(see footnote p.75)

(1) The rate of increase between these dates was 11.9% (Los Angeles-Long Beach CPI, 1967=100) so the Association undoubtedly re-opened.

(2) Had the rate been 3.1%, the employees would have had the best deal; had it been 8.9% the employer would have been the winner. Is this a good gamble? If negotiable, a better deal for the employees would be to get the full CPI annual percentage increase. If they did re-open, that would undoubtedly have been their demand--even if they had to settle for less.

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SAMPLE CLAUSE 19

FROM ALUMINUM INDUSTRY AGREEMENT WITH UNITED
STEELWORKERS EFF. FEB. 1974

RETIREE'S COST-OF-LIVING PROVISIONS

A. Beginning with the month of February 1976, and continuing for the term of this Agreement, each retiree who receives a monthly pension (other than a deferred vested pension benefit) under the Pension Agreement on account of retirement on or after February 1, 1974, shall receive a monthly Retiree's Cost-of-Living Supplement equal to the amount obtained by multiplying his Basic Benefit amount for that month by the Adjustment Percentage determined as of the latest Adjustment Date.

B. For the purposes of this Agreement:

1. "Average Consumer Price Index" refers to the annual average Consumer Price Index for Urban Wage Earners and Clerical Workers--U.S. City Average--All Items (1967=100) published by the Bureau of Labor Statistics, U.S. Department of Labor.

2. "Average CPI Base" refers to the annual Average CPI for the calendar year 1974.

3. "Adjustment Dates" shall be February 1, 1976, and February 1, 1977.

4. "Change in the CPI" shall be the percentage difference between the average CPI for the calendar year immediately preceding the applicable Adjustment Date and the Average CPI Base.

5. "Adjustment Percentage" shall be the product of .65 times the percentage change in the CPI.

6. "Basic Benefit" refers to the montly pension (a) before any actuarial reduction, reduction attributable to the election of a surviving spouse's benefit or reduction attributable to the application of the 85 percent limit under the Pension Plan and (b) exclusive of any supplementary pension benefit.

C. The Retiree's Cost-of-Living Supplement shall not be payable for any month for which the employee has received a Special Retirement Payment under the Pension Plan.

D. Nothing herein shall change or affect the Basic Benefit.

E. Should the annual average Consumer Price Index in its present form and on the same basis as the last index published prior to February 1, 1974, become unavailable, the parties shall attempt to adjust this Article, or if agreement is not reached, request the Bureau of Labor Statistics to provide an appropriate conversion or adjustment, which shall be applicable as of the appropriate Adjustment Date and thereafter.

CHAPTER 5: REVIEWING MODEL COLA CLAUSES

Section A below includes the standard COLA clause provisions that can be used with either the point system or the percentage COLA, and can also be used with any possible adjustment interval (monthly, quarterly, semi-annual, annual, or a longer period). The language used in Section A is not repeated when the payment provisions are set forth in Section B (for a percentage COLA with quarterly adjustment), and in Section C (for a point system COLA with quarterly adjustment). Therefore if you want to put together your own favorite model, take Section A and combine it with either Section B or Section C.

Again we left space at the left of the page for you to enter your own notes about anything you may want to question, improve, or change to fit your particular circumstances. In collective bargaining, no model clause will ever cover every possibility. The language given here should therefore be regarded more as a guideline. Use what you can, but be careful to make the appropriate changes and adaptations whenever necessary, so that what you propose will correctly fit your bargaining situation.

We also added some "Labor Center Notes" at the end of each of the following sections. We hope that our analysis will prove to be useful to you.

A. STANDARD PROVISIONS APPLICABLE TO ANY KIND OF COLA CLAUSE

Cost of Living Adjustments:

1. In addition to the wage rates listed elsewhere in this Agreement, the Company shall make Cost of Living Adjustments, or COLAs, as set forth herein.
2. COLA amounts will be determined on the basis of changes in the Consumer Price Index for Urban Wage Earners and Clerical Workers, U.S. City Average, All Items (1967=100), published by the Bureau of Labor Statistics of the U.S. Department of Labor, and hereafter identified as the CPI.
3. COLA amounts will be based on changes in the CPI from the Base Period of _____.
4. COLA amounts shall be determined and paid as specified below and shall be included for all pay purposes.

5. At the end of each one year period after the effective date of this Agreement, the base rates of pay set forth elsewhere in this Agreement shall be revised to include the COLA amounts determined and paid during the preceding year. These amounts shall then become a part of the base rates of pay.
6. In no event will any pay be reduced because of the operation of this clause.
7. No adjustments, retroactive or otherwise, shall be made due to any revision which may later be made in the published figures for the CPI.
8. If the Bureau of Labor Statistics' CPI in its present form and calculated on the same basis shall be revised therefrom or discontinued, the parties shall attempt to adjust this clause; if agreement is not reached, the parties shall request the Bureau of Labor Statistics to provide an appropriate conversion of the allowance which shall be applicable as of the appropriate allowance date and thereafter. In the event no satisfactory arrangement can be made, the union shall have the right to strike over the issue.

LABOR CENTER NOTES:

(1) Para.3: The Base Period should be the month before the effective date of your contract. Give the year as well.

(2) Para.4: The phrase "all pay purposes" includes overtime, vacation and holiday pay, call in pay, any shift differential pay, and any paid leave time (including jury duty, sick leave, and bereavement leave). If any fringe benefit contributions are based on percentages of the base rates, they should be separately specified if you want to be sure they are included in the term "all pay purposes."

If there is not a clear understanding by both parties about what is included in the term "all pay purposes," it would be best to expand this clause by specifying every pay item to be included.

(3) Para.5: This annual fold-in should be used if your adjustment interval is monthly, quarterly, or semi-annual. If you have an annual adjustment interval, or any longer time period, you should omit both paragraphs 4 and 5 above, and propose instead that "COLA amounts shall be determined and paid as specified below, and shall be added to base rates of pay when due."

In either case, the fold-in will be difficult to negotiate. The employer will regard it as compounding--that is, paying the later COLAs on top of the earlier ones. But in any clause which does not fold in, protection is given only to the base rate of pay at the beginning of the contract term (plus any deferred increases added to the base

rate during the term of the agreement). The cost of living protection does not extend to any COLA amounts that are not folded in.

If workers are to be fully protected against inflation, a good case can be made in negotiations for a quarterly adjustment clause which simply adds the COLA amounts to base rates whenever they are due. But the realities of bargaining must also be considered. Of the 19 clauses analyzed in Chapter 4 of this workbook, only two have full fold-ins--the Steelworkers and Local 390 BART (their 1976 clause, which was lost in the 1979-80 strike). In both of these annual fold-ins, there are also limits in the definition of what kinds of pay the COLA amounts will be added to (in addition to base wages), in each one year period before they are folded in. In the case of the Steelworkers, the quarterly COLA amounts are add-ons only to hours actually worked, and reporting allowances, and overtime pay, and are specifically excluded "in the calculation of any other pay, allowance, or benefit."

It is interesting to note that the UAW clause analyzed in Chapter 4 provides for a fold-in only from one contract to the next (that is, it is negotiated as part of the contract renewal). But the clause has a very broad definition of the kinds of pay to which the quarterly COLA amounts will be added (in addition to base wages), including overtime, night shift premium, vacation, holiday and call-in pay, bereavement leave, jury duty, short time military duty, and other paid absence time.

These clauses suggest that in the give and take of bargaining, one price the union has to pay to get an annual fold-in of a quarterly adjustment clause is a narrower definition of what the COLA amounts will be added to in each one year period before the fold-in occurs. In the case of the Steelworkers clause in Chapter 4, if the narrower definition was the only price, the union undoubtedly struck the best part of this bargain.

(4) Para.6: An alternative to this clause is to add the following to Para.3: "If the CPI falls below its Base Period level, there shall be no COLA." However, this is not as strong a clause as Para.6, because it would permit a reduction to the extent that there has been any COLA increase, whereas Para.6 prohibits this kind of reduction, along with any other kind.

B. MODEL PERCENTAGE COLA WITH QUARTERLY ADJUSTMENT AND ANNUAL FOLD-IN (3-YEAR CONTRACT)

9. The first COLA shall be effective the first pay period beginning on or after May 1, 1981, and shall continue in effect until the first pay period beginning on or after August 1, 1981. At that time and thereafter during the life of the Agreement, cost of living adjustment shall be made quarterly on the basis of changes in the CPI as follows:

effective date of
adjustments (if any):
first pay period on
or after:

based upon
difference between
the Dec.1980 CPI
and the CPI for:

May 1, 1981
Aug. 1, 1981
Nov. 1, 1981
Feb. 1, 1982
May 1, 1982
Aug. 1, 1982
Nov. 1, 1982
Feb. 1, 1983
May 1, 1983
Aug. 1, 1983
Nov. 1, 1983

Mar 1981
June 1981
Sept 1981
Dec 1981
Mar 1982
June 1982
Sept 1982
Dec 1982
Mar 1983
June 1983
Sept 1983

10. The amount of the cost of living adjustment which shall be effective for any such quarterly period shall be determined in accordance with the following formula:

SUBTRACT THE BASE PERIOD INDEX FROM THE CURRENT APPLICABLE INDEX. DIVIDE THE DIFFERENCE, IF ANY, BY THE BASE PERIOD INDEX. THE RESULT IS THE PERCENTAGE CHANGE IN THE CPI.

The resulting percentage change shall be applied to each pay rate to determine the amount of each cost of living adjustment.

LABOR CENTER NOTES:

(1) Para.9: This clause assumes a three year contract effective Jan. 1, 1981. In this case the Base Period to be specified in Para.3 (see Section A) is Dec. 1980. The first quarterly adjustment will be payable as of May 1, based on the difference in the CPI between the Base Period (Dec. 1980) and March 1981. The March 1981 figure will be made public by BLS in the latter part of April, so the data will be available in time to calculate the adjustment due May 1.

A quarterly adjustment clause is used here because examples of negotiated monthly adjustment clauses are very rare. However, a monthly adjustment interval is certainly preferable to quarterly, and should be proposed by the union. If you go for monthly, you won't need the table showing the effective date of adjustment in the left column, and what it is based upon in the right column. All you need to specify is the following.

"The percentage change, if any, between the CPI for the Base Period (Dec. 1980 in this example) and each subsequent month shall be applied to the wage rates of each employee, computed to the nearest cent, and payable in each month beginning March 1, 1981."

**C. MODEL POINT COLA WITH QUARTERLY ADJUSTMENT
AND ANNUAL FOLD-IN (3-YEAR CONTRACT)**

9. The first COLA shall be effective the first pay period beginning on or after May 1, 1981, and shall continue in effect until the first pay period beginning on or after August 1, 1981. At that time and thereafter during the life of the Agreement, cost of living adjustments shall be made quarterly on the basis of changes in the CPI as follows:

<u>effective date of adjustment (if any):</u> first pay period on or after:	<u>based upon</u> difference between the Dec. 1980 CPI and the CPI for:
May 1, 1981	Mar. 1981
Aug. 1, 1981	Jun. 1981
Nov. 1, 1981	Sep. 1981
Feb. 1, 1982	Dec. 1981
May 1, 1982	Mar. 1982
Aug. 1, 1982	Jun. 1982
Nov. 1, 1982	Sep. 1982
Feb. 1, 1983	Dec. 1982
May 1, 1983	Mar. 1983
Aug. 1, 1983	Jun. 1983
Nov. 1, 1983	Sep. 1983

10. The amount of the cost of living adjustment which shall be effective for any such quarterly period shall be determined in accordance with the following formula:

(A) DIVIDE THE BASE PERIOD INDEX BY THE WEIGHTED AVERAGE OF THE BARGAINING UNIT (OR SUB-UNITS, AS MAY BE DETERMINED BY THE PARTIES TO THIS AGREEMENT), EXPRESSED IN TOTAL CENTS PER HOUR. THE RESULT WHEN ROUNDED TO THE SECOND DECIMAL PLACE IS THE NUMBER OF POINTS OF CHANGE IN THE CPI WHICH WILL REQUIRE AN ADJUSTMENT OF 1¢ PER HOUR, HEREAFTER REFERRED TO AS THE POINT VALUE.

(B) DETERMINE THE POINTS OF DIFFERENCE IN THE CPI IN EACH QUARTERLY PERIOD SPECIFIED ABOVE, AND DIVIDE BY THE POINT VALUE OF PARA.(A) ABOVE. ROUNDED TO THE NEAREST CENT, THE RESULT IS THE ADJUSTMENT, IN TOTAL CENTS PER HOUR, REQUIRED FOR EACH PAY RATE FOR EACH PAY PERIOD SPECIFIED IN PARA. 9 ABOVE.

LABOR CENTER NOTES:

(1) Para.9: This clause also assumes a three year contract effective Jan. 1, 1981. Again in this case, the Base Period to be specified in Para. 3 (see Section A), is December, 1980. The first quarterly adjustment will be payable as of May 1, based on the difference in the CPI

between the Base Period (Dec. 1980) and March 1981. The March figure will be made public by BLS in the latter part of April, so the data will be available in time to calculate the adjustment due May 1.

The table showing effective date of adjustments in the left column and what they are based upon in the right column, is exactly the same as the table in the percentage clause given in Section B. It is the formula in the next paragraph that differs significantly.

(2) Para.10: It is not common practice to give the formula in the clause. This procedure is suggested here because once the employer has been committed to this method of determining the point value, it should become easier to bring everything up to date again in future negotiations.

To illustrate the operation of this formula:

(A) Assume a \$9.00 weighted average wage rate (but note also that there could be several weighted average rates applied to several sub-units). The computation would then be

$$\frac{258.7}{900} = .287 \text{ The point value is therefore .29}$$

(B) The first adjustment payable May 1, will depend on the difference between the CPI for the Base Period (Dec. 1980) and the CPI for March 1981. For purposes of illustration only, assume that the March 1981 CPI is 265.5, making 6.8 points of change since Dec. 1980. (265.5 - 258.7 = 6.8). (The actual CPI for March 1981, is not available as this is being written). The computation would then be

$$\frac{6.8}{.29} = 23 \text{ (rounded to nearest cent)}$$

23¢ per hour would then be payable as the COLA for May 1, 1981.

(3) A quarterly adjustment clause is given here as a model, because examples of negotiated monthly adjustment clauses are very rare. However, a monthly adjustment interval is certainly preferable to quarterly, and should be proposed by the union. If you go for monthly, you won't need any part of Para.9 in the quarterly model. All you will need to specify is the following:

"The first COLA shall be effective the first pay period beginning on or after March 1, 1981, and shall continue in effect until the first pay period beginning on or after April 1, 1981. At that time and thereafter during the life of the Agreement, cost of living adjustments shall be made monthly on the basis of changes in the CPI between the Base Period (Dec. 1980 in this example) and each subsequent month, in accordance with the formula set forth in Paragraph 10."

In Para.10, the references to "quarterly" would then be changed to read "monthly;" but the point formula would be the same.

(4) Among unions which use the point system in their COLA clauses, the common practice is not to specify the formula which is used to determine the point value (paragraph 10(A) in the "model" clause above). Instead, most such unions develop a schedule of CPI numbers which will result from application of the formula. For example, if it is determined by the formula that there will be a 1¢ adjustment for each .3 change in the CPI, the contract will not usually specify how this determination is reached. But it will specify the amount of adjustment, often in a table something like this:

If the CPI is between:	then	the hourly adjustment will be:
258.7 - 259.9		1¢
260.0 - 260.2		2
260.3 - 260.5		3
260.6 - 260.8		4
260.9 - 261.1		5
261.2 - 261.4		6

and so forth, with an additional cent
per hour for each .3 increase in the CPI

The advantage of this approach is that members covered by the Agreement can tell easily how the clause applies to them. All they need to know is the CPI number for the date of adjustment.

The disadvantage of this approach is that when you use the formula to determine the point value (in paragraph 10(A) of the "model" clause above), you must round to the first decimal place rather than the second, because the CPI is reported only to the first decimal place. Some statistical distortion is the price that has to be paid for this rounding. Sometimes the distortion is considerable, as the analysis in Chapter 3 indicated (see pages 41-43). And it is always a random matter whether the distortion will favor the employees or the employer.

Each union must decide which is the preferable approach. However, two additional but related considerations should be carefully weighed in the process: (a) The percentage approach of Section B above is simpler than the point system approach of Section C, and does permit a full explanation of the formula in the clause. Of course, it does not require or even permit use of a table indicating how much the adjustments will be for each specified amount of change in the CPI. (b) A good case can be made that if the point system COLA approach is a useful addition to the union's flexibility in wage bargaining (and it clearly is), then the way in which it is being used should be fully set forth in the contract.