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May 31, 2001

Mr. Aristotle L. Hutras  
Director  
Ohio Retirement Study Council  
88 East Broad Street, Suite 1175  
Columbus, OH 43215-3580

Re: House Bill 157 - COLA provisions in the 5 Ohio Retirement Systems

Dear Aris:

As requested, we have prepared an analysis of House Bill 157, "HB 157", which would modify the COLAs provided by the five Ohio Retirement Systems by making the annual COLA adjustment a fixed 3% rather than the current provision which provides a COLA that is capped at 3%.

**Operation of COLAs under current law**

A common cost-of-living adjustment formula currently applies to all Ohio Retirement Systems (except that the effective dates are different for the Highway Patrol Retirement System). All systems currently provide cost-of-living adjustments equal to the lesser of:

- (a) the actual rate of increase in the CPI-W index during the most recent calendar year; or,
- (b) 3%.

(Under current law, an adjustment is made in the event that the cost-of-living adjustment made in a prior year was limited by the 3% maximum if actual inflation falls below 3% during a subsequent year.)

The exact operation of the current provision is somewhat involved due to two factors. They are:

1. years during which inflation exceeds the 3% limit results in the creation of a "bank" which can be drawn on to increase the COLA otherwise payable during years when the rate of inflation falls short of 3%; and,

2. years during which the CPI-W index declines (deflation) are ignored since neither benefits nor “banks” are reduced.

### **Historical illustrations of the current formula**

The current cost-of-living formula provides an adjustment less than full inflation when inflation exceeds 3% and may provide more than the current rate of inflation when inflation falls below 3%. To illustrate this effect, we have indicated on the attached Exhibit A a summary of the cost-of-living increases which would have been provided to a 1933 retiree under the current formula if the current cost-of-living adjustment formula had been applicable. We picked this year of retirement because the inflation averaged exactly 3.0% over the subsequent 30 years and that period included years with deflation (negative inflation).

Exhibit B summarizes the results of similar calculations for hypothetical retirees each year since the creation of the CPI-W index in 1913. We have based these calculations on both an assumed life expectancy of 30 years and 40 years. These results compare the actual average cost-of-living adjustment that would have been provided under the current cost-of-living adjustment formula with the actual average rate of inflation during the historical periods.

As indicated on those exhibits, the current formula would have generally provided adjustments in excess of inflation when inflation averaged 2% or lower and less than actual price inflation when inflation averaged 2-1/2% or higher.

### **Stochastic (or statistical or mathematical) Modeling of the current formula**

An alternative way of analyzing the current formula is to mathematically model the level of cost-of-living adjustments provided based on historical statistics regarding the variability in the rate of inflation from year to year (i.e., inflation’s standard deviation) and the relationship of inflation in the current year to inflation in the preceding year (i.e., inflation’s serial correlation). A summary of such projections is indicated in the following table.

Estimated Average Cost-of-Living Adjustments under Current Law Provided Under Alternative Assumptions Regarding Average Inflation					
Average future inflation:	2.0%	2.5%	3.0%	3.5%	4.0%
Average COLA adjustment:	2.2	2.4	2.6	2.7	2.8

As indicated above, the level of cost-of-living adjustments provided by the current formula can be expected to average within a relatively narrow range of between 2.2% and

2.8% if future price inflation averages between 2% and 4% per year. Thus the current cost-of-living adjustment formula can be expected to pay less than 3% per year in cost-of-living adjustments to retirees when inflation averages even as much as 4%.

**Cost of current formula**

Each of the five Ohio Retirement Systems includes the cost of providing COLA adjustments to retirees in its actuarial calculations of the cost of the system. We have roughly estimated the portion of the total cost of providing pension benefits that is attributable to the COLA benefits and summarized those estimates below. (These cost estimates were developed a year ago and were based on then current law, including SB 190, and the January 1, 1999 actuarial valuations for HPRS, OP&F and PERS, and the July 1, 1999 actuarial valuations for SERS and STRS. We did not update these calculations for purposes of this analysis because the relative cost of the COLA and other benefits should not have changed significantly due to either subsequent legislation or actuarial experience.)

	<b>HPRS</b>	<b>PERS- State</b>	<b>PERS- Local</b>	<b>PERS- LE</b>	<b>OP&amp;F</b>	<b>SERS</b>	<b>STRS</b>
<b>Normal Cost as % of payroll attributable to:</b>							
COLAs	5.1%	2.6%	2.6%	3.9%	4.2%	2.3%	3.0%
Other Benefits	19.9	12.1	12.1	16.0	15.8	11.5	12.1
Total Pensions	25.0	14.7	14.7	19.9	20.0	13.8	15.1
Portion due to COLAs	20%	18%	18%	20%	21%	17%	20%
<b>Actuarial Liabilities (<i>in billions</i>) attributable to:</b>							
COLAs	\$0.11	\$2.76	\$3.73	\$0.25	\$1.17	\$1.24	\$9.93
Other Benefits	0.42	12.52	17.28	1.04	7.28	6.29	42.46
Total Pensions	0.53	15.28	21.01	1.29	8.45	7.53	52.39
Portion due to COLAs	21%	18%	18%	19%	14%	16%	19%

As indicated in the previous table, between 17% and 21% of the normal costs and 14% to 21% of the actuarial liabilities of the five systems are attributable to COLAs. The portion of the costs attributable to COLAs is higher for the public safety groups due to their earlier retirement ages. The COLA costs for STRS are higher than for the other non-uniformed groups due to their retirees' very favorable life expectancies and relatively young average retirement ages.

All of the systems assume in their actuarial valuations that the COLA adjustments each year will be the 3% maximum provided under current law.

### **Change to a fixed 3% COLA adjustment**

HB 157 would amend the current COLA formula to provide for fixed 3% cost-of-living adjustments without regard to the actual rate of inflation.

As indicated in the above discussion regarding the operation of the current formula, the current formula under-adjusts for inflation whenever inflation exceeds 2.5%. Moving to a 3% fixed COLA would produce a formula which would either over-adjust or under-adjust retirees benefits unless the rate of inflation were exactly 3.0%. During the 88 years since the CPI-W index was created, inflation has been exactly 3.0% only once – in 1982-3. In 47 of those years, inflation was less than 3.0% and in the other 39 it exceeded 3.0%.

Moving to a fixed 3% annual COLA adjustment would increase benefit payments under each of the five systems relative to current law. Thus this change would serve to increase their actual costs over time. The fact that the actuarial assumptions assume that a 3% COLA will be paid each year does not mean that increasing the COLA adjustments to 3% will have no cost. To the extent that future benefit payments under a fixed 3% COLA would exceed benefit payments under current law, the provision will increase long-term costs.

Some of the past discussion regarding this issue may seem confusing to non-actuaries. The current actuarial valuations are based on the assumption that a 3% COLA will be paid each year in the future. Thus moving to a fixed 3% COLA in practice would not affect the *current actuarial status* of any of the systems. But if actual future COLA payments were lower than the assumed level of 3%, *future actuarial gains* would be created. These gains would be available to offset adverse experience in other areas or speed the amortization of the UAL.

The estimated magnitude and growth in these gains over the past 9 years is summarized below. (There will be no gain in PERS and OP&F during the fiscal year ending December 31, 2001 because the July 2001 COLA adjustment will be the full 3%. The gains in SERS and STRS during the fiscal year ending June 30, 2001 is because the July 2000 COLA was less than 3%.)

*(\$ Amounts in millions)*

<b>FY ending</b>	<b>PERS</b>	<b>OP&amp;F</b>	<b>SERS</b>	<b>STRS</b>
1993	\$22.4	\$4.9	\$0.0	\$0.0
1994	20.9	4.7	4.2	31.1
1995	20.7	5.3	5.0	36.4
1996	0.9	0.3	5.3	41.9
1997	1.8	0.5	0.2	1.6
1998	23.1	6.0	0.4	3.9
1999	80.1	20.7	5.3	45.4
2000	63.3	15.6	18.1	126.3
2001	<u>0.0</u>	<u>0.0</u>	<u>14.2</u>	<u>223.8</u>
<b>Total</b>	<b>\$233.2</b>	<b>\$58.0</b>	<b>\$52.7</b>	<b>\$510.4</b>

The gains shown in the above table reflect the present value of the savings over the remaining lifetime of the retirees and beneficiaries due to lower COLA adjustments in those years than the 3% assumption. (In the above table, we did not estimate these gains for HPRS because HPRS is much smaller than the other Ohio Retirement Systems and the COLA calculation for HPRS is more complex than the calculation for the other systems. The added cost of estimating these gains for HPRS did not seem justified in the context of this analysis.)

While these gains have not been the major cause of the dramatic improvement in the funded status of each of the systems over the past decade (relatively high investment returns and low salary growth have been much more significant factors), they have contributed roughly \$850 million to the improvement in funded status over this period.

If inflation remains below 3% over the next decade (as most professional forecasters surveyed by the Federal Reserve Bank of Philadelphia predict it will), gains from COLA payments lower than the 3% level would be a growing source of future gains. For example, the banks for members who retired between July 1, 1990 and June 30, 1995 were all exhausted last year. As a result, COLA adjustments effective July 1, 2000 were less than 3% for members who retired on or after July 1, 1990. Retirees prior to July 1, 1990 still have accumulated balances in their banks. (The increase in the CPI-W index was 3.5% from 1999 to 2000, so the COLA adjustment effective July 1, 2001 will be 3% for all retirees and 0.5% will be added to all banks.) If inflation averages less than 3% in the future, with the passage of time additional cohorts of retirees will exhaust their accumulated banks and generate future gains if the COLA structure is not changed.

Thus, we do not believe that it is appropriate to represent a fixed 3% cost-of-living adjustment as having no additional cost. But it is accurate to assert that fixing the COLA at 3% will have no effect on the *current* actuarial status of the systems. Such a change

would serve to eliminate the possibility of *future* gains, but would not affect the *current* actuarial status.

### **Purchasing Parity Adjustments**

It is possible to provide an adjustment to restore some portion of the purchasing power of a retiree's initial benefit at the time of retirement that has been eroded due to inflation. This is typically done by establishing a "target ratio" based on the ratio of:

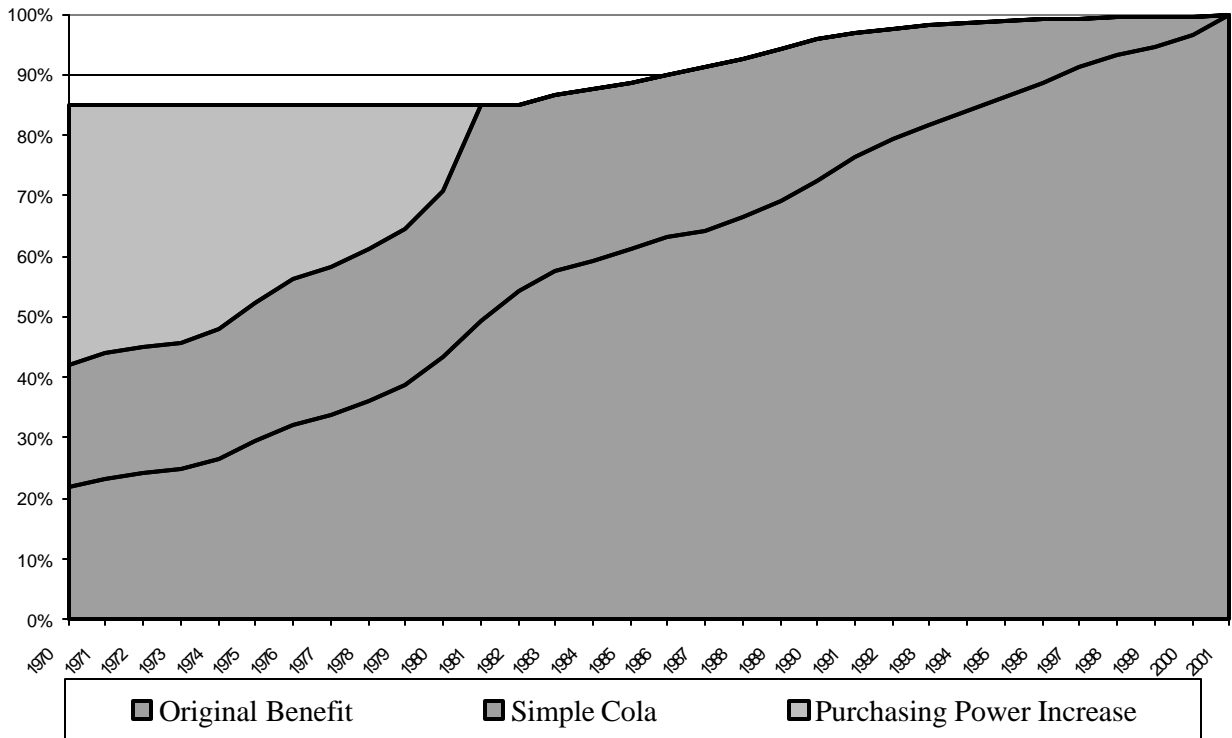
1. a retiree's current total pension benefit (the initial benefit plus the total COLA adjustments to date) to
2. the fully inflation adjusted benefit (the initial benefit adjusted to reflect 100% of the increase in the CPI since retirement).

If that ratio for a retiree falls below some target, such as 85% or 75%, the retiree would receive an additional COLA adjustment to restore the ratio to its target. Such an adjustment is often referred to as a "purchasing parity" adjustment or a "purchasing power" adjustment. This type of an adjustment could be provided either on an ad hoc basis or automatically whenever a retiree's ratio falls below the target. (If an automatic purchasing power adjustment were enacted, it would effectively provide an uncapped COLA of 100% of the increase in the CPI to retirees after inflation erodes their pension to the target threshold.)

Last year, SB 190 and HB 628 / SB 277 contained ad hoc purchasing parity adjustments for STRS and PERS, respectively, based on a target of 85%.

The effect of such an adjustment is illustrated for the Ohio Retirement Systems based on the current law and a target of 85% in the following graph. (This graph doesn't accurately reflect the COLA for HPRS since HPRS retirees would have to wait until age 53 to receive their first COLA adjustment.)

### Purchasing Power by Year of Retirement



The key advantage of this type of an adjustment is that it provides general equity among retirees with regard to maintaining the purchasing power of their pensions. This is especially advantageous in situations, such as in Ohio, where COLAs are provided that may be less than a full inflation adjustment due to:

1. a cap on the COLA adjustment, such as 3%, or
2. the use of a methodology, such as the simple COLA provided under Ohio law (as opposed to a compounded COLA).

### **Health Insurance**

The Legislature and the ORSC may want to consider the possible desirability of the Retirement Boards allocating more of the employer contribution rate to providing health insurance benefits instead of COLAs. The COLA adjustments tend to benefit the higher paid and longer service members relatively more than other members (since they will have higher benefits and thus larger COLA increases) but a significant portion of the increased benefit will be lost due to both Federal and State taxes. Health insurance benefits are of equal value to both the high and low paid employees and are not subject to income taxation.

### **Effect of Investment Returns since most recent Actuarial Valuation**

The year 2000 produced unfavorable investment returns for all five of the Ohio Retirement Systems, as indicated in the table below.

	Returns January through June, 2000	Returns July through December, 2000	Total Year	Valuation Interest Rate
HPRS	1.78%	(2.04%)	(0.29%)	7.75%
OP&F	1.18	(2.31)	(1.16)	8.25
PERS	1.23	(2.03)	(0.83)	7.75
SERS	3.06	(4.03)	(1.09)	8.25
STRS	1.10	(3.50)	(2.45)	7.75

The returns shown above are measured based on market values of investments while the systems report their actuarial status based on actuarial asset values which are intended to smooth out the more volatile market values. We summarized in the following table the relationship between market values and actuarial values as of the most recent actuarial valuation for each system and indicated the shortfall from the actuarial investment return assumption to provide a rough indication of the impact of 2000's unfavorable investment returns. (Amounts shown are in millions.)



	Valuation Interest Rate	Valuation Date	Excess of MV over Actuarial Value of Assets at most recent valuation	Estimated shortfall in investment returns since last valuation	Estimated Excess of MV over Actuarial Value of Assets at December 31, 2000
HPRS	7.75%	January, 2000	(\$6.7)	\$43.9	(\$50.6)
OP&F	8.25	January, 2000	1,112.9	756.8	356.1
PERS	7.75	January, 2000	4,029.0	3,723.3	305.7
SERS	8.25	July, 2000	561.4	1,039.6	(478.2)
STRS	7.75	July, 2000	3,315.1	5,886.6	(2,571.5)

As indicated above, all of the systems, except HPRS, had assets as of their last actuarial valuation that, when valued at market, exceeded their actuarial value. Since the actuarial value of assets is assumed to grow at the actuarial investment return assumption, the shortfall shown above is the estimated decrease in the buffer between market and actuarial assets values since the most recent valuation. These estimates indicate that actuarial losses due to adverse investment experience may have eliminated the buffer for SERS and STRS.

But, of course, the systems all report their actuarial status based on the actuarial value of assets, not their market value. The exact actuarial value of assets for HPRS, OP&F and PERS as of January 1, 2001 is not available yet. SERS and STRS will not calculate the actuarial value of assets until July 1, 2001, the date of their next actuarial valuation. When those figures are available, they will reflect some, but not all, of the shortfall in investment returns since the last actuarial valuation in the actuarial value of assets because of the smoothing mechanisms used in determining the actuarial value of assets. Hence the figures shown above probably overstate the effect of the last year's unfavorable investment results on their actuarial status that will be reported in the next actuarial valuation.

**Effect on ability to support healthcare benefits**

Because the five Ohio Retirement Systems finance their discretionary health care benefits on a modified pay-as-you-go basis, it is appropriate to consider whether they can be expected to encounter difficulty financing health care benefits before enacting legislation that would increase the long term cost of the systems. To estimate the ability of current contribution rates to support health care benefits, we have typically provided to the Council projections of the Healthcare Fund over the period of time required to amortize all unfunded actuarial liabilities. It seems reasonable to continue this approach to

determine the effect on the ability of the systems to fund healthcare benefits if the COLA adjustments were fixed at 3%.

In the recent past, we have prepared rough projections reflecting an assumed growth in health care costs at three alternative rates - the rate of payroll growth plus 0%, 1% and 2% per annum. Health care inflation at a rate as low as the rate of payroll growth is a quite optimistic assumption. But we believe this is a reasonable baseline for these projections because the Boards have the ability to manage the growth in net health care costs by increasing retiree premiums and/or offering lower cost health care options to retired members. To place a frame of reference around the baseline projections, we also projected the growth in the Healthcare Fund under alternative healthcare inflation assumptions 1% and 2% higher than the baseline projection. These were intended to provide an indication of the margin for adverse experience.

#### PERS, SERS and STRS

Last year we presented such projections in conjunction with our review of proposed legislation to improve benefits under PERS, SERS and STRS. Those projections indicated that the systems could continue to support their current health care programs over the time period required to amortize UAL's provided that the rate of growth in per capita costs were managed to fall within 2% of the rate of growth in payroll. Since fixing the COLA at 3% would not increase the funding period for PERS, SERS or STRS, we have not updated those projections.

#### HPRS

We did not prepare a projection for HPRS because the baseline projection shown in the January 1, 2000 HPRS actuarial valuation indicates that the healthcare fund balance will grow for the next century if healthcare costs are managed to grow at the rate of payroll growth.

#### OP&F

Watson Wyatt, the consulting actuary to OP&F, prepared a "Report on the Solvency of the Health Care Stabilization Fund" of OP&F dated November 1, 2000. That report projected the Health Care Stabilization Fund, "HCSF", based on different, and somewhat higher, health cost inflation rates than we have used for the projections we prepared for the Council for the other four systems. We have not prepared alternative projections for OP&F because the Report indicated that the HCSF would be exhausted in 2015 in spite of:

1. increases in the portion of the contribution rate that will be allocated to the HCSF;  
and,
2. increases in the member premium schedule that will go into effect July 1, 2001.

Since 2015 is well before OP&F's Unfunded Actuarial Accrued Liabilities are expected to be fully amortized (the funding period reported in the January 1, 2000 actuarial valuation was 26.8 years), it is clear that OP&F would be adversely affected by any increase in benefits or reduction in contributions. Based on Watson Wyatt's forecasts, without some unanticipated favorable experience OP&F will not be able to both:

1. satisfy the requirements of SB 82, which requires a 30 year amortization period for a UAL due to pension benefits, and,
2. continue the current healthcare benefits without making significant benefit reductions or member premium increases.

It is worth noting that Watson Wyatt indicated that the healthcare trend assumptions used for that report were the Baseline + 1% Trend assumptions from their 1998 Forecast Study. Their report further indicated that "Actual 1999 cost was considerably higher than expected in the Forecast under the Baseline Trend assumptions... Most of the increase is due to the increased cost of prescription drugs. Because of this increase we have switched to the Baseline Trend + 1% trend rate assumption. But even these changed rates may prove to be too low."

The Report indicated that the OP&F Board will be challenged to manage the growth in health care costs.

In order to provide a frame of reference for the magnitude of the challenge facing the Board, we estimated that the member premiums would have to gradually increase to 70% of total health insurance costs by 2027, the last year of the Watson Wyatt projection, to maintain a positive balance in the HCSF to that point. Member premiums were 5.14% of the total cost of the health insurance benefits in 2000. A revised member premium schedule is scheduled to become effective July 1, 2001 that will increase the member premiums to 6.0% of total costs. Increasing member premiums from 5.14% or 6.0% of total costs to 70% of total costs would represent an increase of more than ten times! This would represent a very dramatic reduction in benefits for OP&F retirees.

Of course, the OP&F Board has other options, such as allocating a larger portion of the total contributions to the HCSF. As noted in the Watson Wyatt study, "allocating additional assets to the HCSF will decrease pension assets, causing the unfunded liability to increase." This could jeopardize the ability of the OP&F Board to meet the 30-year funding period requirement of SB 82.

Mr. Aristotle L. Hutras  
May 31, 2001  
Page 12

**Summary**

Increasing pension benefits by fixing the COLA adjustments at 3% will serve to further increase the pressure on OP&F's ability to continue to finance health care benefits at a time when the HCSF is already projected to be exhausted by 2015. Thus we believe that such a change would not be appropriate for OP&F. For the same reasons, we recommended earlier that OP&F could not afford to have its state subsidies eliminated at this time. (The state subsidies for the other four systems were eliminated in HB 94.)

The COLA adjustments could be fixed at 3% for PERS, STRS, SERS, and HPRS without violating the requirements of SB 82 or jeopardizing their ability to continue to provide health insurance. Hence this change would be affordable for those four systems.

Please let us know if you have any questions or if you need any additional information.

Sincerely,

William A. Reimert

Katherine A. Warren

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Enclosures

## Exhibit A

### Illustrative COLA

<u>From</u>	<u>To</u>	<u>Increase in CPI-W</u>	<u>COLA</u>	<u>Bank after COLA</u>
1933	1934	3.85%	3.00%	0.85%
1934	1935	2.22%	3.00%	0.07%
1935	1936	0.72%	0.79%	0.00%
1936	1937	3.60%	3.00%	0.60%
1937	1938	-1.39%	0.60%	0.00%
1938	1939	-1.41%	0.00%	0.00%
1939	1940	0.71%	0.71%	0.00%
1940	1941	4.96%	3.00%	1.96%
1941	1942	10.81%	3.00%	9.78%
1942	1943	6.10%	3.00%	12.87%
1943	1944	1.72%	3.00%	11.60%
1944	1945	2.26%	3.00%	10.86%
1945	1946	8.29%	3.00%	16.14%
1946	1947	14.80%	3.00%	27.94%
1947	1948	7.56%	3.00%	32.50%
1948	1949	-0.83%	3.00%	29.50%
1949	1950	0.83%	3.00%	27.33%
1950	1951	7.85%	3.00%	32.18%
1951	1952	2.30%	3.00%	31.48%
1952	1953	0.75%	3.00%	29.23%
1953	1954	0.37%	3.00%	26.60%
1954	1955	-0.37%	3.00%	23.60%
1955	1956	1.49%	3.00%	22.09%
1956	1957	3.66%	3.00%	22.75%
1957	1958	2.83%	3.00%	22.58%
1958	1959	0.69%	3.00%	20.26%
1959	1960	1.71%	3.00%	18.97%
1960	1961	1.01%	3.00%	16.98%
1961	1962	1.00%	3.00%	14.97%
1962	1963	1.32%	3.00%	13.29%
	Average	2.98%	2.67%	

## Exhibit B

From	To	Annual Change in CPI-W	Average Annual <u>Change in CPI-W</u>		Average Annual <u>COLA Benefit</u>	
			Over Next 30 Years	Over Next 40 Years	Over Next 30 Years	Over Next 40 Years
1913	1914	1.0%	2.1%	2.7%	2.9%	2.9%
1914	1915	1.0%	2.1%	2.7%	2.9%	2.9%
1915	1916	7.8%	2.2%	2.7%	3.0%	3.0%
1916	1917	17.3%	2.2%	2.5%	3.0%	3.0%
1917	1918	17.1%	2.1%	2.2%	2.8%	2.9%
1918	1919	15.2%	1.8%	1.8%	2.4%	2.5%
1919	1920	15.5%	1.3%	1.5%	2.0%	2.2%
1920	1921	-10.4%	0.8%	1.1%	1.5%	1.9%
1921	1922	-6.1%	1.4%	1.4%	1.6%	2.0%
1922	1923	1.8%	1.7%	1.6%	1.7%	2.1%
1923	1924	0.0%	1.6%	1.6%	1.8%	2.1%
1924	1925	2.3%	1.6%	1.6%	1.9%	2.2%
1925	1926	1.1%	1.6%	1.6%	1.9%	2.2%
1926	1927	-1.7%	1.6%	1.6%	2.0%	2.2%
1927	1928	-1.7%	1.7%	1.7%	2.1%	2.3%
1928	1929	0.0%	1.9%	1.9%	2.2%	2.4%
1929	1930	-2.3%	1.9%	2.0%	2.3%	2.5%
1930	1931	-8.9%	2.1%	2.2%	2.4%	2.5%
1931	1932	-10.5%	2.4%	2.6%	2.5%	2.6%
1932	1933	-5.1%	2.8%	2.9%	2.6%	2.7%
1933	1934	3.8%	3.0%	3.2%	2.7%	2.8%
1934	1935	2.2%	2.9%	3.4%	2.6%	2.7%
1935	1936	0.7%	2.9%	3.5%	2.7%	2.8%
1936	1937	3.6%	2.9%	3.7%	2.7%	2.8%
1937	1938	-1.4%	2.9%	3.7%	2.7%	2.8%
1938	1939	-1.4%	3.1%	4.0%	2.8%	2.9%
1939	1940	0.7%	3.3%	4.3%	2.9%	2.9%
1940	1941	5.0%	3.5%	4.6%	3.0%	3.0%
1941	1942	10.8%	3.5%	4.7%	3.0%	3.0%
1942	1943	6.1%	3.2%	4.6%	3.0%	3.0%
1943	1944	1.7%	3.2%	4.5%	2.9%	2.9%
1944	1945	2.3%	3.6%	4.6%	2.9%	3.0%
1945	1946	8.3%	3.8%	4.6%	3.0%	3.0%
1946	1947	14.8%	3.7%	4.4%	2.8%	2.8%
1947	1948	7.6%	3.4%	4.2%	2.4%	2.6%
1948	1949	-0.8%	3.4%	4.1%	2.3%	2.4%

## Exhibit B

From	To	Annual Change in CPI-W	Average Annual <u>Change in CPI-W</u>		Average Annual <u>COLA Benefit</u>	
			Over Next 30 Years	Over Next 40 Years	Over Next 30 Years	Over Next 40 Years
1949	1950	0.8%	3.8%	4.2%	2.4%	2.5%
1950	1951	7.9%	4.2%	4.3%	2.4%	2.6%
1951	1952	2.3%	4.3%	4.2%	2.3%	2.4%
1952	1953	0.7%	4.5%	4.2%	2.3%	2.5%
1953	1954	0.4%	4.5%	4.3%	2.4%	2.5%
1954	1955	-0.4%	4.6%	4.3%	2.4%	2.6%
1955	1956	1.5%	4.8%	4.4%	2.5%	2.7%
1956	1957	3.7%	4.8%	4.5%	2.6%	2.7%
1957	1958	2.8%	4.8%	4.4%	2.6%	2.7%
1958	1959	0.7%	4.8%	4.4%	2.6%	2.7%
1959	1960	1.7%	4.9%	4.4%	2.7%	2.7%
1960	1961	1.0%	5.1%	4.5%	2.7%	2.8%
1961	1962	1.0%	5.2%	<b>4.5%</b>	2.8%	<b>2.8%</b>
1962	1963	1.3%	5.2%	<b>4.6%</b>	2.8%	<b>2.9%</b>
1963	1964	1.3%	5.3%	<b>4.6%</b>	2.9%	<b>2.9%</b>
1964	1965	1.6%	5.3%	<b>4.7%</b>	2.9%	<b>3.0%</b>
1965	1966	2.8%	5.4%	<b>4.7%</b>	3.0%	<b>3.0%</b>
1966	1967	3.1%	5.4%	<b>4.7%</b>	3.0%	<b>3.0%</b>
1967	1968	4.2%	5.3%	<b>4.7%</b>	3.0%	<b>3.0%</b>
1968	1969	5.4%	5.2%	<b>4.7%</b>	3.0%	<b>3.0%</b>
1969	1970	5.7%	5.1%	<b>4.6%</b>	3.0%	<b>3.0%</b>
1970	1971	4.4%	5.1%	<b>4.6%</b>	3.0%	<b>3.0%</b>
1971	1972	3.4%	<b>5.0%</b>	<b>4.5%</b>	<b>3.0%</b>	<b>3.0%</b>
1972	1973	6.2%	<b>5.0%</b>	<b>4.5%</b>	<b>3.0%</b>	<b>3.0%</b>
1973	1974	11.0%	<b>4.9%</b>	<b>4.4%</b>	<b>3.0%</b>	<b>3.0%</b>
1974	1975	9.1%	<b>4.6%</b>	<b>4.2%</b>	<b>3.0%</b>	<b>3.0%</b>
1975	1976	5.7%	<b>4.4%</b>	<b>4.1%</b>	<b>3.0%</b>	<b>3.0%</b>
1976	1977	6.5%	<b>4.4%</b>	<b>4.0%</b>	<b>3.0%</b>	<b>3.0%</b>
1977	1978	7.7%	<b>4.2%</b>	<b>3.9%</b>	<b>3.0%</b>	<b>3.0%</b>
1978	1979	11.4%	<b>4.1%</b>	<b>3.8%</b>	<b>3.0%</b>	<b>3.0%</b>
1979	1980	13.4%	<b>3.8%</b>	<b>3.6%</b>	<b>3.0%</b>	<b>3.0%</b>
1980	1981	10.3%	<b>3.5%</b>	<b>3.3%</b>	<b>3.0%</b>	<b>2.9%</b>
1981	1982	6.0%	<b>3.2%</b>	<b>3.2%</b>	<b>2.9%</b>	<b>2.8%</b>
1982	1983	3.0%	<b>3.1%</b>	<b>3.1%</b>	<b>2.8%</b>	<b>2.8%</b>
1983	1984	3.5%	<b>3.1%</b>	<b>3.1%</b>	<b>2.8%</b>	<b>2.8%</b>

## Exhibit B

<u>From</u>	<u>To</u>	Annual Change in CPI-W	Average Annual <u>Change in CPI-W</u>		Average Annual <u>COLA Benefit</u>	
			<u>Over Next 30 Years</u>	<u>Over Next 40 Years</u>	<u>Over Next 30 Years</u>	<u>Over Next 40 Years</u>
1984	1985	3.5%	<b>3.1%</b>	<b>3.1%</b>	<b>2.8%</b>	<b>2.7%</b>
1985	1986	1.6%	<b>3.1%</b>	<b>3.1%</b>	<b>2.7%</b>	<b>2.7%</b>
1986	1987	3.6%	<b>3.1%</b>	<b>3.1%</b>	<b>2.8%</b>	<b>2.7%</b>
1987	1988	4.0%	<b>3.1%</b>	<b>3.1%</b>	<b>2.7%</b>	<b>2.7%</b>
1988	1989	4.8%	<b>3.1%</b>	<b>3.1%</b>	<b>2.7%</b>	<b>2.7%</b>
1989	1990	5.2%	<b>3.0%</b>	<b>3.0%</b>	<b>2.6%</b>	<b>2.7%</b>
1990	1991	4.1%	<b>2.9%</b>	<b>3.0%</b>	<b>2.6%</b>	<b>2.6%</b>
1991	1992	2.9%	<b>2.9%</b>	<b>2.9%</b>	<b>2.5%</b>	<b>2.6%</b>
1992	1993	2.8%	<b>2.9%</b>	<b>2.9%</b>	<b>2.5%</b>	<b>2.6%</b>
1993	1994	2.5%	<b>2.9%</b>	<b>2.9%</b>	<b>2.5%</b>	<b>2.6%</b>
1994	1995	2.9%	<b>2.9%</b>	<b>2.9%</b>	<b>2.5%</b>	<b>2.6%</b>
1995	1996	2.9%	<b>2.9%</b>	<b>3.0%</b>	<b>2.5%</b>	<b>2.6%</b>
1996	1997	2.3%	<b>2.9%</b>	<b>3.0%</b>	<b>2.5%</b>	<b>2.6%</b>
1997	1998	1.3%	<b>3.0%</b>	<b>3.0%</b>	<b>2.5%</b>	<b>2.6%</b>
1998	1999	2.2%	<b>3.0%</b>	<b>3.0%</b>	<b>2.6%</b>	<b>2.6%</b>
1999	2000	3.5%	<b>3.0%</b>	<b>3.0%</b>	<b>2.6%</b>	<b>2.6%</b>

Figures in regular type; e.g. "2.1%" are based on historical data only. Figures in bold italics; e.g. "**4.4%**" are based on historical data through 2000 and projected values for subsequent years.