SB 270 - Drake - Actuarial Analysis performed by Milliman & Robertson, Inc. at the request of the Ohio Retirement Study Council.

April 21, 2000

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

Re: SERS Proposed Benefit Improvements – Senate Bill 270

Dear Aris:

As requested, we have reviewed the actuarial cost statement prepared by Gabriel, Roeder, Smith & Co. dated February 3, 2000 regarding the proposed plan enhancements for members of the School Employees Retirement System, SERS, contained in Senate Bill 270.   We have summarized our comments below.

Proposed changes to SERS

SB 270 would provide the following enhancements to the SERS.

- The formula for age and service retirements and disability benefits (for both the pre-1992 and post-1992 disability plans) would increase from 2.1% to 2.2% for the first 30 years of service (the current 2.5% multiplier for service beyond 30 years would remain unchanged).
- The maximum service retirement benefit would increase from 90% to 100% of final average salary.
- The current COLA, based on the CPI-W, would be changed to a fixed 3% COLA without regard to the level of inflation.
- An alternative survivor benefit would be established for participants who die with 20 or more years of service, ranging from 29% of Final Average Salary (FAS) for 20 years of service to 60% of FAS for 29 or more years of service.
- Would provide for the recalculation of benefits that became effective on or after January 1, 2000 but prior to the effective date of the bill to reflect the above changes and the payment of a one-time lump sum payment to reflect the difference between the payments made and the payments that would have been made had the bill become effective January 1, 2000.
- The monthly Medicare Part B premium reimbursement would increase from $31.80 to $45.50.
- Would provide for the one-time lump sum payment equal to the difference between the Medicare Part B reimbursement made between January 1, 1993 and the effective date of the bill

and the Medicare Part B reimbursement provided under SB 270 as if it had been effective January 1, 1993.

Background

In our Study of the Ohio Public Retirement Systems of July 29, 1998, we recommended that the ORSC and the Ohio Retirement Systems develop policies to deal with the dramatically improved funded status of the retirement systems due to the very favorable investment environment of the recent past. Most systems have seen significant reductions in their Unfunded Actuarial Liabilities, UAL, for pension benefits. As a result of this development, members and employers no longer need to contribute at the rates required in the past to amortize existing UALs and it would be helpful to have a policy regarding how future contribution rates should be set. Moreover, a policy could address the level of possible benefit improvements and amortization schedules (funding periods) for increases in pension UALs which might arise either due to benefit increases or unfavorable actuarial experience. Such a policy could set forth how to balance these factors and establish acceptable trade-offs.

The current statute requires SERS to provide statutorily established pension, disability and survivor benefits. There are three sources of financing for these benefits:
- contributions from members,
- contributions from employers, and
- investment income.

The Board is also authorized to set contribution rates within statutorily established limits to pay for those benefits. Employers contribute up to 14% of payroll (the current employer contribution rate is 14%) and a health care surcharge for employees earning less than an actuarially-determined minimum pay, pro-rated according to service credit earned (the employer surcharge produced $29.0 million of additional contributions in FY 1999 which was equivalent to 1.6% of payroll). Members contribute up to 10% of their salaries (the current member contribution rate is 9%). The Board is also authorized to provide health insurance benefits in the event the financial resources are available to do so. The system must be managed so that the funding period for the unfunded actuarial accrued pension liabilities is not more than 30 years as recommended by the ORSC and adopted in SB 82.

Hence when investment returns are more favorable than expected, either contribution rates could be reduced and/or benefits could be increased. In the absence of a funding policy, there may be an expectation among either members or employers that contribution rates will be reduced when experience becomes more favorable than previously assumed. Alternatively there may be an expectation that the contribution rates will remain unchanged and the benefits will be improved within the limits of the available financing.

Absent a funding policy which addresses these issues, it is not clear how proposed benefit increases, such as those provided by this bill should be viewed. Perhaps members or employers view the current statutory maximum rates as being "temporary" in that they will be reduced when the actuarial accrued pension liabilities become fully funded. If either members or employers have this understanding, then they may reasonably be expecting that any future favorable experience will be used to fund the current actuarial accrued pension liabilities thereby advancing the date when the

contribution rates could be reduced by the Board.

Our point in raising this issue is not to assert what the various stakeholders (members and employers) in SERS view as appropriate policy because we are not in a position to know. But it seems important to raise this issue as part of the consideration of this Bill. There is at least one reference in the Ohio Revised Code that indicates that the portion of the employer contribution required to fund the actuarial accrued pension liability would cease at the point when the system is fully funded. (The employers are responsible for contributing to amortize the unfunded liabilities.) This is contained in the provisions of the Alternative Retirement Plan provisions set forth in §3305 that establishes the Supplemental Contribution payable on account of higher education employees who elect to join an ARP. (See §3305.06)

We believe that there are several questions which merit consideration by the ORSC in its review of this legislation. They are:

- Who should benefit from (pay for) either anticipated or unanticipated favorable (unfavorable) experience?

- What priority should be assigned to maintaining the current level of health insurance provided to SERS retirees relative to improved pension, disability or survivor benefits?

The enactment of SB 270 would serve to increase the actuarial pension liabilities of SERS and hence will defer the date when contributions to amortize unfunded actuarial accrued pension liabilities can be reduced or eliminated. Moreover, it will increase the future financial resources allocated to pension, disability, and survivor benefits and hence reduce the resources other than the employer surcharge available to support health insurance. Since the health insurance benefits receive favorable tax treatment in that they do not represent taxable income to retirees and are intended to replace Medicare for some retirees, the ability to continue to finance the current level of health insurance benefits without significant increases in the employer surcharge may be a particularly important consideration.

It is worth noting that similar issues arose in connection with proposals for improved benefits for the State Teachers Retirement System, STRS, and the Public Employees Retirement System, PERS, and will arise with similar proposals for the other Ohio Retirement Systems. These are not issues unique to SERS.

Policy regarding COLAs

Proposed change

Under the proposed SB 270, retirees would receive a fixed 3% cost-of-living adjustment effective each July 1st without regard to the actual rate of inflation. This would represent a change to the current cost-of-living adjustment formula that currently applies to all Ohio Retirement Systems (except that the effective dates are slightly 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.)

A similar proposal is contained in HB 628 / SB 277 for PERS and HB 655 for the Ohio Police and Fire Pension Fund, OP&F.

Effect of Modifying the Cost-of-Living Adjustment Provision

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

(1)   years during which the CPI-W index declines (deflation) are ignored since neither benefits or "banks" are reduced; and,

(2)   years during which inflation exceeds the 3% limit result 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%.

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 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 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 2.5% or higher. Increasing the COLA adjustment to a fixed 3% would further increase the over-adjustment when inflation is relatively low and only slightly make up the shortfall when inflation is high. This suggests that the Legislature might prefer to consider Special Ad Hoc cost-of-living adjustments in circumstances when the current formula provides inadequate COLA adjustments, i.e., when inflation is high, rather than a fixed COLA to all retirees even when inflation is low.

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 current inflation to inflation in the preceding year (i.e., inflation's serial correlation). A summary of such projections is indicated in the table below.

Estimated Average Cost-of-Living Adjustments Provided Under
Alternative Assumptions Regarding Average Inflation

Assumed Average Future Price Inflation	Estimated Average Cost-of-Living Adjustment Under Current Formula
2.0%	2.2%
2.5%	2.4%
3.0%	2.6%
3.5%	2.7%
4.0%	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%.

Accordingly, a change in the statute to provide for fixed 3% cost-of-living adjustments without regard to the actual rate of inflation will serve to increase actual costs over time under SERS (and the other Ohio Retirement Systems if subsequent legislation extended this provision to them also). 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 payments under current law, the provision will increase long-term costs. Thus, we do not believe that it is appropriate to represent a fixed 3% cost-of-living adjustment as having no cost even though the current actuarial assumption anticipates that a 3% COLA will be paid each year.

Simple vs. Compounded COLA Adjustments

Under current law, COLA adjustments are made on what is called a "simple" basis. This means that the additional COLA benefit is calculated by applying the COLA rate to the initial benefit at retirement instead of the retirees' current benefit (the initial benefit plus all COLA adjustments made to date). Since the rate of CPI increase is calculated on a "compounded" basis, applying the COLA rate in the way required by current law has the effect of providing less than a full adjustment for inflation even when the rate of inflation is less than the 3% cap. Moreover it provides less than a 3% increase in a retirees' current income after they have been retired for a number of years.

Modifying the current COLA provision to provide adjustments on a compounded basis would

provide the greatest benefit to retirees whose pensions have been eroded the most by past inflation. In contrast, the SB 270 proposal would increase the COLA adjustment the most for recent retirees who have received a full, or almost full, inflation adjustment while inflation has been less than 3%. It would do this because it would increase their COLAs to a fixed rate of 3% which exceeds the rate of inflation. After a retiree has been retired for a number of years, even a 3% fixed COLA would provide less than a full inflation adjustment even if inflation continues to average less than 3%. This would happen because the adjustments would continue to be made on a simple, rather than a compounded, basis. Providing an excessive COLA adjustment to recent retirees while providing less than a full adjustment to others who have been retired longer seems inequitable.

Policy with respect to the recalculation of Retirees' Benefits

SB 270 contains a provision requiring SERS to recalculate benefits granted on or after January 1, 2000 but prior to the effective date of the bill in accordance with the benefit improvements effective with the new bill. HB 628 / SB 277 contain similar provisions for all retirees in PERS (without regard to when they retired) and SB 190 contained a similar provision for all retirees in STRS.

SB 190 provided that the recalculation would be *based on the benefit formula prior to SB 190*. SB 270 for SERS and HB 628 / SB 277 for PERS provide for the recalculation *based on the benefit increases provided by those bills*.

The ORSC and the Legislature may wish to consider whether to have a consistent approach to recalculating benefits for retirees applicable to all systems when benefits are improved to the extent affordable.

Financial Status and Actuarial Cost Statement for Bill

The table below summarizes the funded status of the pension benefits of SERS as reported in the June 30, 1999 Actuarial Valuation along with the figures from the actuarial cost statement for SB 270, dated February 3, 2000. The SERS actuary, Gabriel, Roeder, Smith & Company, GRS, prepared these figures.

($ Amounts in millions)

	Before SB 270	Effect of SB 270	After Possible Enactment of SB 270
Employer Normal Cost	4.75%	0.72%	5.47%
Unfunded Actuarial Accrued Liability	$203.2	$296.6	$499.8
20-year amortization rate*	0.80%	1.17%	1.97%

Extension to 25-year amortization	(0.11%)	(0.15%)	(0.26%)
25-year amortization rate*	0.69%	1.02%	1.71%
Total contribution rate for pension benefits	5.44%	1.74%	7.18%
Contribution rate for healthcare benefits **	8.56%	(1.74%)	6.82%
Total employer contribution rate	14.0%	0.0%	14.0%

* A 20-year amortization period was used in the June 30, 1999 Actuarial Valuation. A 25-year amortization period was used in the SB 270 actuarial cost estimate.

** Excludes the employer surcharge that produced $29.0 million of additional contributions in FY 1999 which was equivalent to 1.6% of payroll.

As indicated in the above table, the benefit improvements contained in SB 270 will be financed by extending the amortization period for the UAL from 20 to 25 years and decreasing the portion of the employer contribution rate allocated to health insurance benefits to 6.82%. By comparison, the PERS and STRS employer contribution rates for healthcare benefits are 4.3% and 2.0%, respectively. (The employer healthcare contribution rate for SERS is currently 8.45%, which is higher than this rate has normally been. Also the healthcare rate for STRS is currently 8%, but this rate will apply for one-year only.)

Thus the enactment of this bill would reduce the financing resources available to fund health insurance benefits from regular employer contributions. This will either require the SERS Board to reduce health insurance benefits (they could do so by reducing benefits and/or increasing retiree payments) or increasing the employer surcharge payments. (The minimum pay threshold for the employer healthcare surcharge has been held constant since FY 1997 at $12,400.)

Health Insurance

The health insurance benefits provided by SERS are a significantly greater burden on SERS than on either PERS or STRS due to the relatively low average salaries paid to SERS members. Some comparative data regarding the cost of health insurance is summarized below for each of these systems based on their most recent Comprehensive Annual Financial Reports - fiscal years ending June 30, 1999 for SERS and STRS and fiscal year ending December 31, 1998 for PERS.

($Amounts in millions)

	SERS	PERS	STRS
Benefit payments and administrative expenses	$126.6	$442.3	$300.1
Covered payroll	1,768.1	9,016.6	7,444.3
Benefits + admin as % of payroll	7.2%	4.9%	4.0%
Healthcare Assets	$188.0	$10,011.8	$2,783.4
Assets / (benefits + admin)	1.5 years	22.6 years	9.3 years

As indicated in the above table, the current annual cost of health insurance benefits is 2.3% to 3.2% of payroll higher in SERS than in PERS and STRS, respectively. To offset this difference, SERS collects the employer surcharge to supplement regular employer contributions. While assets have been accumulated to help fund these benefits, the assets accumulated are only approximately 1.5 years of annual costs in SERS and hence provide modest investment income to help finance these benefits and a limited buffer against adverse experience. In contrast, PERS and STRS have 22.6 years and 9.3 years, respectively.

Because SERS finances health insurance costs on a modified pay-as-you-go basis, it is necessary to project the pay-as-you-go costs in order to determine whether SERS can be expected to encounter difficulty financing health insurance benefits. Since the SERS Board has the ability to increase the salary level to which the employer surcharge applies, the Board effectively has an uncapped employer contribution rate. (While the 14% of payroll basic contribution rate is fixed in statute, the surcharge requires employers to contribute additional amounts to the extent employees earn less than the surcharge level.)

To estimate the ability of current SERS contribution rates to support health insurance benefits, we have summarized in the table below a rough 25-year projection of the Healthcare Fund in SERS assuming that the 6.82% employer healthcare contribution rates would remain in effect for the next 25 years. In addition, we assumed that the employer surcharge contributions would increase at an annual rate of 4.25%, which is the assumed rate of general wage inflation adopted by SERS.

Projection of Healthcare Fund
($ Amounts in millions)

Fiscal Year	Net Health Benefits	Employer Contributions	Healthcare Fund at end of year	Years of Current Net Health Costs Covered by Healthcare Fund
Healthcare inflation of 4.25%				
1999	$127	$140	$188	1.5 years
2004	159	184	427	2.7
2009	210	227	768	3.7
2014	296	279	1,138	3.8
2019	426	344	1,381	3.2
2024	573	423	1,300	2.3
Healthcare inflation of 5.25%				
1999	$127	$140	$188	1.5 years
2004	167	184	402	2.4
2009	231	227	640	2.8
2014	341	279	741	2.2
2019	515	344	369	0.7

2024	728	423	(971)	(1.3)

Healthcare inflation of 6.25%

1999	$127	$140	$188	1.5 years
2004	175	184	376	2.1
2009	254	227	505	2.0
2014	393	279	307	0.8
2019	622	344	(770)	(1.2)
2024	922	423	(3,611)	(3.9)

As indicated in the table, to project the growth in health insurance costs we assumed that health cost inflation would be at the rate of 4.25%, 5.25% and 6.25% per annum. A 4.25% rate of health cost inflation is a quite optimistic assumption regarding the rate of future health cost inflation. But we believe this is a reasonable baseline for this projection because the SERS Board has 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 and/or increasing the employer healthcare surcharge level. 4.25% is the rate of general wage inflation and payroll growth assumed by SERS in the actuarial valuation. (We had to select a healthcare inflation assumption since GRS does not make an assumption with respect to this matter in the SERS actuarial valuation. There is no need for them to do so.)

To place a frame of reference around this baseline projection, we have also projected the growth in the Healthcare Fund under alternative healthcare inflation assumptions 1% and 2% higher than the 4.25% baseline. These are intended to provide an indication of the margin for adverse experience.

As indicated in the above projections, if the SERS Board is not successful in managing the rate of increase in these costs to within 1% or so of the rate of growth in payroll (that would require less than a 5.25% rate of inflation in net healthcare costs within the framework of these projections), the Healthcare Fund would be exhausted before the 25 year amortization period for pension benefits is complete. (Once the pension liabilities are fully funded, the SERS Board could reallocate the pension UAL contributions to healthcare benefits.) If net costs grow 2% faster than payroll growth, the Healthcare Fund would be projected to be exhausted in less than 20 years.

These projections indicate that the SERS Board will be challenged to manage the growth in healthcare costs to these levels. But if it encounters adverse trends, the Board would have time to make adjustments in the health insurance program.

Enhanced benefits on termination of active membership

STRS currently provides enhanced interest credits and refunds in excess of accumulated member contributions to active members who withdraw their contributions on termination of covered employment. Moreover, SB 144 would establish similar enhanced benefits for the State and Local Government Divisions of PERS. If provisions similar to those proposed for PERS were adopted for SERS, the SERS Board would be authorized to credit up to 6% interest on member contributions refunded to members who withdraw their contributions on termination. In addition, members who

terminate after 5 years of service would receive 133% of their accumulated member contributions and those terminating after 10 years of service would receive 167% of their accumulated contributions.

If such a provision were added to SB 270 without an increase in contribution rates and if no change were made in the portion of the employer contribution rate allocated to pension benefits, the total benefit improvement package would violate the requirements of SB 82 since the funding period for pension benefits provided by SERS would exceed 30 years. If such provisions were adopted by the legislature, member or employer contributions would have to be increased (or the pension portion of the employer contribution increased) by approximately 1.5% of payroll. (0.3% would be needed to provide the higher interest credits on member contributions and 1.2% would be needed to refund 133% and 167% of accumulated member contributions.)

The preceding are rough cost estimates prepared by M&R based on member data from a few years ago. If the legislature wishes to enact such a provision, it would be appropriate to ask GRS to review and/or update these estimates to assure their appropriateness.

Purchasing Power Ad Hoc COLA

SB 190, which was recently enacted, grants ad hoc COLA increases to current STRS retirees to restore 85% of the purchasing power of their initial pension. HB 628 / SB 277 would provide similar ad hoc COLA adjustments to PERS retirees. SB 270, as drafted, does not contain a similar provision. If the legislature wishes to provide a similar COLA adjustment to SERS retirees as part of this bill, the cost of the bill would increase.

We have estimated the increase in Actuarial Accrued Liabilities that would be caused by such a provision to be approximately $140 million. If such a provision were added to SB 270 without an increase in contribution rates and if no change in the portion of the employer contribution rate allocated to pension benefits were made, the total benefit improvement package would violate the requirements of SB 82 since the funding period for SERS pension benefits would exceed 30 years. If such provisions were adopted by the legislature, member or employer contributions would have to be increased (or the pension portion of the employer contribution increased) by 0.3% of payroll.

The preceding are rough cost estimates prepared by M&R based on member data from a few years ago. If the legislature wishes to enact such a provision, it would be appropriate to ask GRS to review and/or update these estimates to assure their appropriateness.

Actuarial Basis

These estimates were based on the results of the June 30, 1999 Actuarial Valuation and the actuarial cost statement dated February 3, 2000 on SB 270. We reviewed the actuarial cost statement prepared by GRS and it appears to be reasonable.

While we were able to approximate GRS's figures based on census data from a few years ago within a reasonable tolerance, our testing cannot be considered to be a substitute for a complete actuarial audit of SERS Actuarial Valuation.

SERS has not had its regular annual Actuarial Valuation audited. With the enactment of SB 190, such an audit is now required for all of the Ohio Retirement Systems at least once every 10 years. (The Highway Patrol Retirement System is currently being audited; STRS was audited in 1996; and OP&F and PERS were audited in 1999.)

Reasonableness of Actuarial Assumptions

We did a general review for reasonableness of the actuarial assumptions used by GRS for purposes of these calculations. They appear to be reasonable.

Compliance with the requirements of SB 82

Based on the analysis presented above, SB 270, as drafted, can be funded within the 30-year funding period for Unfunded Actuarial Accrued Liabilities established by SB 82. (SERS has adopted a 25-year funding period for this proposal.)

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

Sincerely,

Katherine A. Dill   William A. Reimert

Exhibit A

Illustrative COLA

From	To	Increase in CPI-W	COLA	Bank after COLA
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 Change in CPI-W		Average Annual COLA Benefit	
			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%

Exhibit B

From	To	Annual Change in CPI-W	Average Annual Change in CPI-W		Average Annual COLA Benefit	
			Over Next 30 Years	Over Next 40 Years	Over Next 30 Years	Over Next 40 Years
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%
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%	*4.4%*	2.7%	*2.8%*
1961	1962	1.0%	5.2%	*4.5%*	2.8%	*2.8%*
1962	1963	1.3%	5.2%	*4.5%*	2.8%	*2.9%*
1963	1964	1.3%	5.3%	*4.6%*	2.9%	*2.9%*
1964	1965	1.6%	5.3%	*4.6%*	2.9%	*3.0%*
1965	1966	2.8%	5.4%	*4.6%*	3.0%	*3.0%*
1966	1967	3.1%	5.4%	*4.7%*	3.0%	*3.0%*
1967	1968	4.2%	5.3%	*4.7%*	3.0%	*3.0%*
1968	1969	5.4%	5.2%	*4.6%*	3.0%	*3.0%*
1969	1970	5.7%	5.1%	*4.6%*	3.0%	*3.0%*
1970	1971	4.4%	*5.0%*	*4.5%*	*3.0%*	*3.0%*
1971	1972	3.4%	*5.0%*	*4.5%*	*3.0%*	*3.0%*
1972	1973	6.2%	*4.9%*	*4.4%*	*3.0%*	*3.0%*
1973	1974	11.0%	*4.8%*	*4.4%*	*3.0%*	*3.0%*
1974	1975	9.1%	*4.6%*	*4.2%*	*3.0%*	*3.0%*
1975	1976	5.7%	*4.4%*	*4.0%*	*3.0%*	*3.0%*
1976	1977	6.5%	*4.3%*	*3.9%*	*3.0%*	*3.0%*

Exhibit B

| | | Annual Change in CPI-W | Average Annual Change in CPI-W | | Average Annual COLA Benefit | |
| | | | Over Next | Over Next | Over Next | Over Next |
From	To		30 Years	40 Years	30 Years	40 Years
1977	1978	7.7%	*4.2%*	*3.9%*	*3.0%*	*3.0%*
1978	1979	11.4%	*4.0%*	*3.7%*	*3.0%*	*3.0%*
1979	1980	13.4%	*3.7%*	*3.5%*	*3.0%*	*3.0%*
1980	1981	10.3%	*3.4%*	*3.3%*	*2.9%*	*2.9%*
1981	1982	6.0%	*3.1%*	*3.1%*	*2.8%*	*2.8%*
1982	1983	3.0%	*3.0%*	*3.0%*	*2.7%*	*2.7%*
1983	1984	3.5%	*3.0%*	*3.0%*	*2.7%*	*2.7%*
1984	1985	3.5%	*3.0%*	*3.0%*	*2.7%*	*2.7%*
1985	1986	1.6%	*3.0%*	*3.0%*	*2.7%*	*2.7%*
1986	1987	3.6%	*3.0%*	*3.0%*	*2.7%*	*2.7%*
1987	1988	4.0%	*3.0%*	*3.0%*	*2.7%*	*2.7%*
1988	1989	4.8%	*3.0%*	*3.0%*	*2.6%*	*2.7%*
1989	1990	5.2%	*2.9%*	*2.9%*	*2.6%*	*2.6%*
1990	1991	4.1%	*2.9%*	*2.9%*	*2.5%*	*2.5%*
1991	1992	2.9%	*2.8%*	*2.9%*	*2.4%*	*2.5%*
1992	1993	2.8%	*2.8%*	*2.9%*	*2.4%*	*2.5%*
1993	1994	2.5%	*2.8%*	*2.9%*	*2.4%*	*2.5%*
1994	1995	2.9%	*2.8%*	*2.9%*	*2.4%*	*2.5%*
1995	1996	2.9%	*2.8%*	*2.9%*	*2.4%*	*2.5%*
1996	1997	2.3%	*2.8%*	*2.9%*	*2.4%*	*2.5%*
1997	1998	1.3%	*2.9%*	*2.9%*	*2.4%*	*2.5%*
1998	1999	2.2%	*2.9%*	*2.9%*	*2.5%*	*2.6%*

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 1999 and projected values for subsequent years.