

May 2004

Nova Scotia Teachers' Pension Plan

Report on the Actuarial Valuation for Funding Purposes as at December 31, 2003

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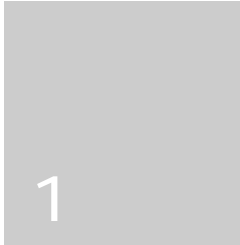
Human Resource Consulting

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Summary of Results

| Going-Concern Financial Position | 31-Dec-2003 | 31-Dec-2002 |
|---|--------------------|--------------------|
| Actuarial value of assets | \$3,719,809,000 | \$3,364,755,000 |
| Actuarial liability | \$4,591,045,000 | \$4,380,224,000 |
| Funding excess (unfunded liability) | (\$871,236,000) | (\$1,015,469,000) |
| Funded ratio | 81.0% | 76.8% |
| | | |
| Funding Requirements | 2004 | 2003 |
| Total current service cost | \$91,767,000 | \$91,057,000 |
| Estimated teachers' required contributions | \$50,669,000 | \$49,800,000 |
| Estimated matching Government contributions | \$50,669,000 | \$49,800,000 |
| Excess contributions | \$9,571,000 | \$8,543,000 |
| Total current service cost as a percentage of payroll | 15.85% | 15.99% |
| Total contributions as a percentage of payroll | 17.50% | 17.49% |



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Introduction

Report on the Actuarial Valuation as at December 31, 2003

To The Teachers' Pension Plan Partners' Board

At your request, we have conducted an actuarial valuation of the Nova Scotia Teachers' Pension Plan as at December 31, 2003. We are pleased to present the results of the valuation.

The purpose of this valuation is to determine:

- the funded status of the plan as at December 31, 2003 on a going-concern basis, and
- the funding requirements from 2004.

The next actuarial valuation of the plan is required for the purposes of the Income Tax Act on or before December 31, 2006. However, the Teachers' Pension Act requires annual valuations.

This valuation reflects the provisions of the plan as at December 31, 2003. Effective April 1, 2003, the plan provides retiring members the option to choose from a number of optional forms of pension. These optional forms will be determined on a basis that is actuarially equivalent to the normal form of pension. This change is expected to have no financial impact on the plan. A summary of the plan provisions is provided in Appendix D.

We have used the same going-concern valuation assumptions and methods as were used for the valuation as at December 31, 2002. They are described in detail in Appendix B.

The Canadian Institute of Actuaries has proposed a new standard for the determination of lump sum amounts payable to members who elect to transfer their entitlements out of the plan on termination of employment. The effective date of the new standard has not yet been established. While any new standard will not have any impact on the going-concern liabilities or current service cost, it will have an impact on the wind-up liabilities determined on or after its effective date.

After checking with representatives of the Pension Services Group, Province of Nova Scotia, to the best of our knowledge there have been no events subsequent to the valuation date which, in our opinion, would have a material impact on the results of the valuation.

Respectfully submitted,



Calvin Jordan
Fellow, Society of Actuaries
Fellow Canadian Institute of Actuaries



Philip Churchill
Fellow, Society of Actuaries
Fellow Canadian Institute of Actuaries

June 4, 2004

Date

June 7, 2004

Date

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Financial Position of the Plan

Valuation Results — Going-Concern Basis

When conducting a valuation on a going-concern basis, we determine the relationship between the respective values of assets and accumulated benefits, assuming the plan will be maintained indefinitely.

Financial Position

The results of the valuation as at December 31, 2003, in comparison with those of the previous valuation as at December 31, 2002, are summarised as follows:

Financial Position ^{3/4} Going-Concern Basis

| Going-Concern Basis | 31-Dec-2003 | 31-Dec-2002 |
|--|-----------------|-------------------|
| Actuarial value of assets | \$3,719,809,000 | \$3,364,755,000 |
| Actuarial liability | | |
| Present value of accrued benefits for: | | |
| ▪ active teachers | \$2,059,247,000 | \$2,008,999,000 |
| ▪ pensioners and survivors | \$2,490,241,000 | \$2,330,953,000 |
| ▪ inactive teachers | \$41,557,000 | \$40,272,000 |
| Total liability | \$4,591,045,000 | \$4,380,224,000 |
| Funding excess (unfunded liability) | (\$871,236,000) | (\$1,015,469,000) |
| Funded ratio | 81.0% | 76.8% |

Reconciliation of Financial Position

The plan's financial position, an unfunded liability of \$871,236,000 as at December 31, 2003, is reconciled with its previous position, an unfunded liability of \$1,015,469,000 as at December 31, 2002, as follows:

Reconciliation of Financial Position

| | |
|--|-------------------|
| Funding excess (unfunded liability) as at 31-Dec-2002 | (\$1,015,469,000) |
| Interest on funding excess (unfunded liability) at 7.38% per year to 31-Dec-2003 | (\$74,942,000) |
| Impact of contributions in excess of current service cost | \$9,583,000 |
| Net experience gains (losses) over period (detailed below) | \$209,411,000 |
| Net impact of other elements of gains and losses | \$181,000 |
| Funding excess (unfunded liability) as at 31-Dec-2003 | (\$871,236,000) |

Plan Experience

The main assumptions are compared with actual experience since the previous valuation as at December 31, 2002.

Plan Experience

| | Assumption | Actual 31-Dec-2002 – 31-Dec-2003 | Impact Gain (Loss) |
|--|---------------|--|-----------------------|
| Investment return | 7.38% | 14.1% | \$221,996,000 |
| Increases in pensionable earnings | 4.53% | 5.84% | } (\$5,776,000) |
| Increases in YMPE | 3.5% | 2.05% | |
| Indexation | 2.0% | 2.2% | (\$5,839,000) |
| Retirements (excluding disability retirement): | | | |
| ▪ number | 478.4 retired | 448 retired | } (\$4,639,000) |
| ▪ average age | 58.0 years | 56.4 years | |
| Mortality: | | | |
| ▪ pre-retirement | 17.9 deaths | 14 deaths | (\$229,000) |
| ▪ post-retirement | 225.9 deaths | 242 deaths | \$3,898,000 |
| Net experience gains (losses) | | | \$209,411,000 |

Valuation Results – Wind-up Basis

When conducting a hypothetical wind-up valuation, we determine the relationship between the respective values of the plan's assets and its liabilities assuming the plan was wound-up and settled on the valuation date. While this valuation does not affect the plan's funding requirements, the Canadian Institute of Actuaries' Standards of Practice require disclosure of the wind-up financial position of the plan.

Financial Position on a Wind-up Basis

The plan's hypothetical wind-up position as of December 31, 2003, is determined as follows:

| Wind-up Position | |
|--|--------------------|
| | 31-Dec-2003 |
| Market value of assets | \$3,719,809,000 |
| Termination expenses | (\$4,000,000) |
| Wind-up assets | \$3,715,809,000 |
| Present value of accrued benefits for: | |
| ▪ active teachers | \$2,046,059,000 |
| ▪ pensioners and survivors | \$2,783,682,000 |
| ▪ inactive teachers | \$48,341,000 |
| Total wind-up liabilities | \$4,878,082,000 |
| Wind-up excess (deficiency) | (\$1,162,273,000) |

Impact of Plan Wind-Up

In our opinion, the value of the plan's assets would be less than its actuarial liabilities if the plan were to be wound-up on the valuation date. Actuarial liabilities would exceed the market value of plan assets by \$1,162,273,000. This calculation includes a provision for termination expenses that might be payable from the pension fund.

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Funding Requirements

Current Service Cost

The estimated value of the benefits that will accrue on behalf of the active teachers during 2004, in comparison with the corresponding value determined in the previous valuation as at December 31, 2002, is summarised below:

Current Service Cost

| | 31-Dec-2003 | 31-Dec-2002 |
|--|--------------|--------------|
| Present value of benefits expected to be accrued in respect of service in the following year | \$91,767,000 | \$91,057,000 |
| Estimated teachers' required contributions | \$50,669,000 | \$49,800,000 |
| Estimated Government required contributions | \$50,669,000 | \$49,800,000 |
| Current service funding excess | \$9,571,000 | \$8,543,000 |
| Total current service cost as a percentage of payroll | 15.85% | 15.99% |
| Total contributions as a percentage of payroll | 17.50% | 17.49% |

The plan has an unfunded liability of \$871,236,000 as of December 31, 2003, on the basis of the assumptions and methods described in this report. The terms of the plan specify that the Province will match the required contributions made by teachers. From an actuarial perspective and assuming teachers and the Province contribute as described above, there is an expected excess contribution of \$9,571,000 compared to the present value of benefits expected to be accrued in respect of service in the year following December 31, 2003. This excess contribution will be applied against the unfunded liability.

Notwithstanding the current service funding excess, it is expected that the unfunded liability will increase over the next year. It is anticipated that, barring any other experience gains or losses and assuming the plan assets earn the assumed 7.38% investment return, the unfunded liability will increase by approximately \$54,726,000 during 2004. This is because the excess contribution is insufficient to pay the interest on the unfunded liability based on the investment return assumption that has been used in this report. We have not been asked to determine in this report the funding that would be required to amortize the unfunded liability.

We also note that the schedule of additional payments made by the Province in accordance with Schedule "B" of the Regulations of the Teachers' Pension Act was completed in 2003. As of the date of this report, no replacement to the Schedule "B" payments has been made.

As the total current service funding excess amounts up to the next valuation are less than the unfunded liability, we believe that, in accordance with subsection 147.2 (2)(c) of the *Income Tax Act*, the contributions required by the Government would be eligible contributions under the *Income Tax Act*.

In certain circumstances, member contributions may be in excess of the limits prescribed by the *Income Tax Act*. We have relied on information provided by the Pension Services Group that member contributions would be acceptable under the *Income Tax Act*.



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Actuarial Opinion

**With respect to the Actuarial Valuation as at December 31, 2003
of the Nova Scotia Teachers' Pension Plan**

Based on the results of this valuation, we hereby certify that, as at December 31, 2003,

- The Plan's current service cost for 2004 and subsequent years, up to the next actuarial valuation, should be calculated as 15.85% of teachers' pensionable earnings.
- The estimated teachers' required contributions and matching Government contributions are expected to be \$50,669,000 each, which will exceed the current service cost for the 12 months following the valuation date, \$91,767,000, by \$9,571,000. The excess amount will be applied against the unfunded liability.
- The plan would be fully funded on a going-concern basis if its assets were augmented by \$871,236,000.

- In our opinion,
 - the data on which the valuation is based are sufficient and reliable for the purposes of the valuation,
 - the assumptions are, in aggregate, appropriate for the purposes of determining the funded status of the plan as at December 31, 2003 on a going-concern basis, and determining the Plan's current service cost, and
 - the methods employed in the valuation are appropriate for the purposes of determining the funded status of the plan as at December 31, 2003 on a going-concern basis, and determining the Plan's current service cost.
- This report has been prepared, and our opinions given, in accordance with accepted actuarial practice.
- All assumptions made for the purposes of the valuation were reasonable at the time the valuation was prepared.



Calvin Jordan
Fellow, Society of Actuaries
Fellow, Canadian Institute of Actuaries

June 4, 2004

Date



Philip Churchill
Fellow, Society of Actuaries
Fellow, Canadian Institute of Actuaries

June 7, 2004

Date



Plan Assets

Sources of Plan Asset Data

The pension fund is held in trust by the Minister of Finance and is invested in accordance with the investment policy.

We have relied upon information provided by the Department of Finance, for the period from December 31, 2002 to December 31, 2003.

Reconciliation of Plan Assets

The pension fund transactions, on a cash basis, for the period from December 31, 2002 to December 31, 2003 are summarised as follows:

Reconciliation of Plan Assets (Market Value)

| | |
|--------------------------------------|-----------------|
| Invested assets at December 31, 2002 | \$3,230,736,000 |
| PLUS | |
| Member contributions (matched) | \$54,083,000 |
| Government contributions (matched) | \$54,083,000 |
| Member contributions (not matched) | \$1,598,000 |
| Schedule B contribution | \$15,007,000 |
| ERP payments | \$30,742,000 |
| Investment income | \$503,984,000 |
| | <hr/> |
| | \$659,497,000 |
| LESS | |
| Pensions paid | \$219,795,000 |
| Net transfers to other plans | \$2,122,000 |
| Expenses | \$7,233,000 |
| | <hr/> |
| | \$229,150,000 |
| Invested assets at December 31, 2003 | <hr/> |
| | \$3,661,083,000 |

In addition, there are scheduled payments to be made by the Province in respect of an early retirement program which ended on July 31, 1998. There are also a number of payables and receivables due from / to the fund. The scheduled payments to be made by the Province of Nova Scotia in accordance with Schedule "B" of the Regulations of the Nova Scotia Teachers' Pension Act were completed during 2003.

The value of assets used for the purposes of this valuation equals the market value of the assets in the pension trust fund, adjusted for the net receivables / payables plus the present value of the remaining payments by the Province under the early retirement program.

Therefore, the actuarial value of assets is equal to:

Actuarial Value of Assets

| | |
|--|-----------------|
| Invested assets at December 31, 2003 | \$3,661,083,000 |
| Receivable from Province re: ERP | \$59,178,000 |
| Other receivables | \$29,537,000 |
| Payables | (\$29,989,000) |
| Actuarial value of assets at December 31, 2003 | <hr/> |
| | \$3,719,809,000 |

The return on plan assets (net of expenses) since the last valuation at December 31, 2002 was 14.1%. This rate was greater than the assumed investment return of 7.38% by 6.72% and contributed an experience gain of \$221,996,000.

Appendix B

Actuarial Methods and Assumptions

Actuarial Valuation Methods — Going-Concern Basis

Valuation of Assets

For this valuation, we have used the market value of plan assets adjusted as described in Appendix A.

Valuation of Actuarial Liabilities

Over time, the real cost to the sponsor of a pension plan is the excess of benefits and expenses over member contributions and investment earnings. The actuarial cost method allocates this cost to annual time periods.

For purposes of the going-concern valuation, we have continued to use the *projected unit credit actuarial cost method*. Under this method, we determine the actuarial present value of benefits accrued in respect of service prior to the valuation date, including ancillary benefits, based on projected final average earnings. This is referred to as the *actuarial liability*. For each individual plan member, accumulated contributions with interest are established as a minimum actuarial liability.

The *funding excess* or *unfunded liability*, as the case may be, is the difference between the actuarial value of assets and the actuarial liability.

Current Service Cost

The *current service cost* is the actuarial present value of projected benefits to be paid under the plan with respect to service during the year following the valuation date.

The current service cost has been expressed as a percentage of the teachers' pensionable earnings to provide an automatic adjustment in the event of fluctuations in membership and/or pensionable earnings.

Under the projected unit credit actuarial cost method, the current service cost for an individual member will increase each year as the member approaches retirement. However, the current service cost of the entire group, expressed as a percentage of the members' pensionable earnings, can be expected to remain stable as long as the average age of the group remains constant.

Actuarial Assumptions — Going-Concern Basis

The actuarial value of benefits is based on economic and demographic assumptions. At each valuation, we determine whether, in our opinion, the actuarial assumptions are still appropriate for the purposes of the valuation, and we revise them if necessary.

In this valuation, we have used the same assumptions as in the previous valuation. Emerging experience will result in gains or losses that will be revealed and considered in future actuarial valuations. For this valuation, we have used the following assumptions:

Economic Assumptions

Investment Return

We have assumed that the investment return on the actuarial value of the fund, net of expenses charged to the fund, will average 7.38% per year over the long term.

This is based on an assumed inflation rate of 3.0% per year compounded with a real rate of return of 4.25% per year.

Expenses

The assumed Investment Return reflects an implicit provision for expenses.

Increases in Pensionable Earnings

The benefits ultimately paid will depend on each teacher's final average earnings at either retirement, death or disability.

To determine the final average earnings, we have taken the teacher's annualized earnings during the 2002 – 2003 school year, increased by 1.5% to reflect the increase effective August 1, 2003 and assumed that earnings will increase by 3.5% per annum plus a promotional scale. For those teachers who joined the plan after July 31, 2003, we have annualized the member's earnings from August 1, 2003 to December 31, 2003. The total annual salary increases after the valuation date are detailed in the table below:

| Total Annual Increases in Teachers' Pensionable Earnings | |
|---|------------------------|
| Age Group | Annual Increase |
| less than 30 | 6.25% |
| 30 – 34 | 5.75% |
| 35 – 39 | 5.25% |
| 40 – 44 | 4.75% |
| 45 – 49 | 4.25% |
| 50 – 59 | 3.75% |
| 60 plus | 3.5% |

Increases in the YMPE

Since the benefits provided by the plan depend on the final average Year's Maximum Pensionable Earnings (YMPE) under the Canada Pension Plan, it is necessary to make an assumption about increases in the YMPE for this valuation. We have assumed that the YMPE will increase at the rate of 3.5% per year from its 2003 level of \$39,900.

Increases in the Maximum Pension Permitted under the Income Tax Act

We have assumed the maximum lifetime pension that can be provided under a registered pension plan is \$1,833.33 per year of service in 2004 and \$2,000.00 per year of service in 2005. After 2005, we have assumed that the maximum lifetime pension payable under the plan will increase at the rate of 3.5% per annum.

Demographic Assumptions

Retirement Age

It was assumed that 60% of the active teachers would retire at the earliest age at which they would be eligible for an unreduced pension. The remainder are assumed to retire at the earliest of:

- age 65;
- 35 years of service; or
- age 60 with 10 years of service.

Teachers who had already attained the normal retirement age (age 65) were assumed to retire immediately.

Inactive teachers are assumed to retire at their earliest unreduced retirement date.

Termination of Employment

We have made an allowance for future reductions or increases, if any, in liabilities which occur as teachers terminate their employment before retirement for reasons other than death.

We have assumed that teachers would terminate at the rate of 5% per annum in each of the first two years of membership.

Mortality

The actuarial value of the pension depends on the lifetime of the member and, if applicable, the member's spouse. We have assumed mortality rates, both before and after retirement, in accordance with the 1994 Group Annuitant Mortality (GAM) Table projected to 2000 using Scale AA. According to this table, the life expectancy at age 65 is 18.4 years for a man and 21.6 years for a woman.

Disability

We have made an allowance for the possibility that teachers may receive a disability pension. The rates are the same for males and females and have been applied only to teachers between the ages of 35 and 59. Disability rates scale from 0.05% at age 35 to 1.5% at age 59. The table below summarises the disability rates:

Disability Rates

| Age | Annual Rate of Disability |
|-----|---------------------------|
| 35 | 0.05% |
| 40 | 0.10% |
| 45 | 0.15% |
| 50 | 0.4% |
| 55 | 1.0% |
| 59 | 1.5% |

Family Composition

Benefits in case of death, before and after retirement, depend on whether the teacher has an eligible spouse, child, or dependent at the time of death.

For this valuation, we have assumed that 85% of male teachers and 75% of female teachers will have an eligible spouse at retirement, and that the male partner will be three years older than the female partner. We have made no allowance for new orphan or dependent benefits payable on the death of a member, other than those already in payment at the valuation date.

After retirement, 85% of members with a spouse at retirement are assumed to have a spouse at the date of the valuation.

Actuarial Valuation Methods and Assumptions – Wind-up Basis

To determine the wind-up actuarial liability, we have valued those benefits that would have been paid had the plan been wound-up on the valuation date, with all members fully vested in their accrued benefits.

We have considered that all non-retired members would be entitled to a deferred or immediate pension (reduced in accordance with the plan rules) payable from the age

which maximizes the value of the member's accrued benefits. For each individual plan member, accumulated contributions with interest are established as a minimum actuarial liability.

Benefits are assumed to be settled through a lump sum transfer for all non-retired members under age 50. The value of the benefits accrued on December 31, 2003, for such members is based on the assumptions described in the Recommendations for the Computation of Transfer Values from Registered Pension Plans of the Canadian Institute of Actuaries applicable for December 31, 2003 for benefits expected to be settled through transfer in accordance with relevant portability requirements.

Benefits are assumed to be settled through the purchase of annuities for all retired members and non-retired members age 50 and over. The value of the benefits accrued on December 31, 2003, for such members is based on an estimate of the cost of settlement through purchase of annuities. Assumptions are as follows:

Actuarial Assumptions

| | |
|--|--|
| Mortality rates: | GAM-1983 |
| Interest rates for benefits to be settled through lump sum transfer: | Pre-retirement: 6% per year Post-retirement: 4.25% per year |
| Interest rates for benefits to be settled through annuity purchase: | Pre-retirement: 5.25% per year Post-retirement: 3.90% per year |
| Final average earnings: | Calculated using the final pensionable earnings and the assumed rate of increase in earnings |
| Family composition: | Same as for going-concern valuation |
| Termination expenses: | \$4,000,000 |

In a wind-up valuation, the accrued benefits are based on the member's final average earnings on the valuation date, therefore, no salary projection is used. Also, the employment of each member is assumed to have terminated on the valuation date, therefore, no assumption is required for future rates of disability and termination of employment.

Appendix C

Membership Data

Analysis of Membership Data

The actuarial valuation is based on membership data as at December 31, 2003, provided by the Pension Services Group, Province of Nova Scotia.

We have applied tests for internal consistency, as well as for consistency with the data used for the previous valuation. These tests were applied to membership reconciliation, basic information (date of birth, date of hire, date of membership, gender, etc.), pensionable earnings, credited service, contributions accumulated with interest and pensions to retirees and other members entitled to a deferred pension. The results of these tests were satisfactory.

Plan membership data are summarised below. For comparison, we have also summarised corresponding data from the previous valuation.

Membership Data

| | 31-Dec-2003 | 31-Dec-2002 |
|--|-------------|-------------|
| Active Teachers | | |
| ▪ Number | 13,065 | 13,097 |
| ▪ Average pensionable earnings | \$50,360 | \$48,720 |
| ▪ Average age | 43.8 | 43.7 |
| ▪ Average years of pensionable service | 13.9 years | 14.1 years |

| | 31-Dec-2003 | 31-Dec-2002 |
|---|-------------|-------------|
| Inactive Teachers | | |
| ▪ Number | 4,823 | 4,611 |
| ▪ Average age | 43.4 | 43.0 |
| ▪ Average annual pension lifetime pension | \$873 | \$890 |
| Pensioners and Survivors | | |
| ▪ Number | 8,815 | 8,485 |
| ▪ Average age | 67.6 | 67.7 |
| ▪ Average annual lifetime pension | \$23,240 | \$22,609 |
| ▪ Average annual bridge benefit | \$7,278 | \$6,968 |

The membership movement for all categories of membership since the previous actuarial valuation is as follows:

Reconciliation of Membership

| | Active Teachers | Inactive Teachers | Pensioners and Survivors |
|---|--------------------|----------------------|--------------------------------|
| Total at December 31, 2002 | 13,097 | 4,611 | 8,485 |
| New teachers | 937 | | |
| Terminations / refunds | (95) | (153) | |
| Regular retirements | (419) | (29) | 448 |
| Disability retirements | (32) | (2) | 34 |
| Transfers to inactive | (594) | 594 | |
| Transfers from inactive | 181 | (178) | (3) |
| Pensions ceased | | | (15) |
| Deaths: | | | |
| ▪ survivor pension | (5) | | (57) |
| ▪ without survivors | (4) | (5) | (185) |
| New survivor pensions | | | 86 |
| New pensioners due to marriage breakdown | | | 11 |
| Data adjustments | (1) | (15) | 11 |
| Total at December 31, 2003 | 13,065 | 4,823 | 8,815 |

The distribution of the active teachers by age and pensionable service as at December 31, 2003, is summarised as follows:

**Distribution of Active Teachers by
Age Group and Pensionable Service As at 31-Dec-2003**

| Age | Years of Pensionable Service | | | | | | | | Total |
|--------------|------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35+ | |
| 20 – 24 | 119 | | | | | | | | 119 |
| | 27,116 | | | | | | | | 27,116 |
| 25 – 29 | 1,178 | 107 | | | | | | | 1,285 |
| | 30,359 | 42,841 | | | | | | | 31,398 |
| 30 – 34 | 765 | 795 | 82 | | | | | | 1,642 |
| | 33,376 | 46,223 | 54,187 | | | | | | 40,635 |
| 35 – 39 | 475 | 475 | 403 | 94 | | | | | 1,447 |
| | 35,079 | 48,927 | 57,232 | 59,634 | | | | | 47,390 |
| 40 – 44 | 411 | 261 | 296 | 464 | 126 | | | | 1,558 |
| | 35,800 | 49,001 | 57,708 | 59,857 | 60,247 | | | | 51,316 |
| 45 – 49 | 351 | 251 | 238 | 344 | 679 | 335 | 1 | | 2,199 |
| | 36,190 | 48,260 | 55,541 | 59,337 | 60,295 | 60,642 | | | 54,463 |
| 50 – 54 | 260 | 159 | 192 | 222 | 337 | 1,184 | 774 | | 3,128 |
| | 36,596 | 48,682 | 56,065 | 59,415 | 61,287 | 62,122 | 61,145 | | 58,421 |
| 55 – 59 | 158 | 79 | 100 | 110 | 135 | 314 | 544 | 32 | 1,472 |
| | 34,247 | 45,178 | 53,941 | 58,461 | 60,446 | 63,104 | 64,216 | 62,570 | 58,231 |
| 60 – 64 | 65 | 16 | 17 | 20 | 32 | 22 | 20 | 7 | 199 |
| | 36,270 | 40,182 | 54,297 | 60,686 | 60,667 | 63,258 | 63,131 | 67,705 | 51,290 |
| 65+ | 13 | | | 1 | 1 | 1 | | | 16 |
| | 39,029 | | | | | | | | 44,603 |
| Total | 3,795 | 2,143 | 1,328 | 1,255 | 1,310 | 1,856 | 1,339 | 39 | 13,065 |
| | 33,305 | 47,329 | 56,393 | 59,530 | 60,566 | 62,037 | 62,423 | 63,492 | 50,361 |

Note: Each cell contains the number of teachers and average pensionable earnings. Pensionable earnings for cells with less than three teachers are not shown for confidentiality reasons.

The distribution of the inactive members by age as at December 31, 2003, is summarised as follows:

**Distribution of Inactive Teachers
By Age Group as at 31-Dec-2003**

| Age | Inactive Teachers | | Pensioners and Survivors* | |
|--------------|-------------------|-----------------|---------------------------|-----------------|
| | Number | Average Pension | Number | Average Pension |
| under 25 | 5 | 24 | | |
| 25 – 29 | 422 | 139 | | |
| 30 – 34 | 866 | 346 | 4 | 3,752 |
| 35 – 39 | 769 | 448 | 2 | 2,918 |
| 40 – 44 | 671 | 470 | 17 | 9,644 |
| 45 – 49 | 619 | 1,284 | 68 | 12,926 |
| 50 – 54 | 568 | 2,116 | 266 | 20,922 |
| 55 – 59 | 503 | 1,872 | 1,945 | 26,002 |
| 60 – 64 | 290 | 748 | 1,860 | 25,717 |
| 65 – 69 | 66 | 382 | 1,277 | 24,537 |
| 70 – 74 | 16 | 367 | 962 | 24,283 |
| 75 – 79 | 12 | 39 | 737 | 23,501 |
| 80 – 84 | 9 | 59 | 660 | 19,554 |
| 85 – 89 | 2 | 704 | 501 | 18,495 |
| 90 – 94 | 2 | 8 | 290 | 13,955 |
| 95+ | 3 | 513 | 94 | 11,047 |
| Total | 4,823 | \$873 | 8,683 | \$23,530 |

* Excludes dependents and bridge benefits.



Summary of Plan Provisions

Introduction

This valuation is based on the plan provisions in effect on December 31, 2003. The following is a summary of the plan's main provisions in effect on December 31, 2003. It is not intended as a complete description of the plan. Refer to the Teachers' Pension Act and Regulations for a complete description of the Plan.

Eligibility for Membership

All teachers, with some minor exceptions, must join the plan on their date of employment.

Contributions

Teachers contribute 8.3% of earnings up to the Year's Maximum Pensionable Earnings (YMPE) plus 9.9% of earnings in excess of the YMPE.

The Province (as plan sponsor) contributes an amount equal to that of the teachers plus any additional amounts that may be prescribed.

Retirement Dates

Normal Retirement Date

The normal retirement date is the last day of the month in which the member attains age 65, or, if the member so elects, the end of the school year in which the member attains age 65.

Early Retirement Date

Provided the sum of the teacher's attained age and years of pensionable service is at least 85, the teacher may retire at age 55.

If a teacher has at least 10 years of pensionable service, the teacher may choose to retire as early as age 60. A teacher may also retire upon the completion of 35 years of pensionable service.

A teacher who is at least 55 years of age and has at least two years of service, or is at least 50 years of age and has at least 30 years of service may retire subject to a possible reduction in pension payable.

Disability Retirement

A teacher may be retired on account of disability. The disability must be medically certified as likely to be permanent.

Retirement Benefits

Normal or Early Retirement

If a teacher retires on the normal or early retirement date, the teacher will be entitled to the sum of the following:

Normal or Early Benefits

1. Lifetime Pension – Non-CPP Service

2.0% of the average of the teacher's best five years earnings for each year of non-CPP pensionable service.

PLUS

2. Lifetime Pension – CPP Service

1.3% of the average of the teacher's best five years earnings up to the average YMPE plus 2.0% of the best five years earnings in excess of the average YMPE for each year of CPP pensionable service

PLUS

3. Bridge Benefit (payable to age 65)

0.7% of the lesser of the average of the teacher's best five years of earnings and the average of the YMPE over the last five years for each year of CPP pensionable service.

Note: Pensionable service is limited to a maximum of 35 years.

Reduced pensions are calculated on the above basis less a factor of 4% - 5% for each year by which the teacher has retired early.

Disability Retirement Pension

If a teacher retires due to total disability, the pension payable is 2.0% of the average of the teacher's best five years earnings for each year of pensionable service to the date of disability retirement (maximum 35 years). A partial disability pension is paid at the above rate less 17%. In addition, a partial disability pension is subject to a minimum

reduction of 0.25% for each month that the pension commences prior to the earliest date at which the member would otherwise be eligible for an unreduced pension.

Indexing

Pensions in payment are indexed each January 1 by the change in the Consumer Price Index for Canada for the year ending October 31, minus 1%, to a maximum of 6%.

Survivor Benefits

Death Before Retirement

If a teacher dies prior to retirement, and prior to completing 2 years of pensionable service the teacher's beneficiary or estate will receive a lump sum payment of the teacher's contributions with interest.

If, however, the teacher had two or more years of pensionable service and leaves a spouse, in lieu of a refund, the spouse will receive an immediate lifetime pension equal to 60% of the lifetime pension accrued to the member including the bridge benefit for service prior to December 31, 1991. An additional pension equal to 10% of the pension accrued to the member is payable to each surviving child under age 18 (subject to a maximum total of 40%). This pension is payable until age 25 if the child is a student and for life if the child is disabled.

In addition to the pension payable to each eligible child described above, if there is no surviving spouse but there are dependent children under the age of 18 or age 25 if still in school, 60% of the pension, as indicated above, will be paid equally to each eligible child.

If there is no surviving spouse or dependent child, the beneficiary or estate will receive a lump sum payment of the teacher's contributions with interest.

Death After Retirement

Retiring teachers may elect to receive their pension in one of a number of optional forms of pension. Such optional forms include survivor lifetime pensions and bridge benefits of 80% or 100% of the lifetime pension and bridge benefit otherwise payable prior to the retired teacher's death and/or guarantee periods of 5, 10 or 15 years. The pension payable under the optional forms will be determined as the actuarial equivalent of the normal form of pension.

Under the normal form of pension, pension payments cease upon the death of the pensioner. If, however, the deceased pensioner has a spouse at the date of death then survivor benefits are payable under the normal form of pension as follows:

| Situation | Spousal Pension Received Prior to When the Member Would Have Turned 65 | Spousal Pension Received Once the Member Would Have Turned 65 |
|---|--|---|
| Member pensioner dies prior to age 65 | 60% of pension payable to member, including bridge benefit | 60% of pension payable to member plus bridge benefit for service prior to December 31, 1991 |
| Member pensioner dies after reaching age 65 | N/A | 60% of pension payable to member |

In addition to the above, a pension of 10% of the pension payable to the member (as described in the table above) is paid to each eligible surviving child (to a maximum of 40%).

Termination Benefits

If a teacher's employment terminates for reasons other than death, disability or retirement, the benefits payable from the plan will depend on the teacher's pensionable service, as follows:

Benefits in the Event of Termination of Employment

| If teacher has: | If all service is prior to 31-Dec-1987: |
|--|--|
| Less than ten years of pensionable service | A refund of the teacher's contributions with interest. |
| At least ten years of pensionable service | A refund of the teacher's contributions with interest or a deferred pension from normal or early retirement. |
| | If some service is after 01-Jan-1988: |
| Less than two years of pensionable service | A refund of the teacher's contributions with interest |
| At least two years of pensionable service | A deferred pension from normal or early retirement |

If a teacher is entitled to a deferred pension, for service from January 1, 1988, the teacher may transfer the commuted value of that pension to another retirement vehicle in accordance with the applicable federal legislation. A teacher may also transfer any refund of contributions with interest with respect to pre-1988 service to another retirement vehicle in accordance with the regulations.



Government Certification

With respect to the report on the actuarial valuation of the *Nova Scotia Teachers' Pension Plan*, as at December 31, 2003, I hereby certify that, to the best of my knowledge and belief:

- a copy of the official plan documents and of all amendments made up to December 31, 2003, were provided to the actuary;
- the membership data provided to the actuary include a complete and accurate description of every person who is entitled to benefits under the terms of the plan for service up to December 31, 2003, and
- all events subsequent to December 31, 2003 that may have an impact on the results of the valuation have been communicated to the actuary.

Date

Signed

Name

MERCER

Human Resource Consulting

Suite 1300, 1801 Hollis Street
Halifax, Nova Scotia
Canada B3J 3N4
902 429 7050