Office of the Superintendent
of Financial Institutions

Bureau du surintendant
des institutions financières

Pension Plan for Federally Appointed Judges

Actuarial Report
(including cost certificate)

as at December 31, 1988

Canadä

PENSION PLAN

FOR

FEDERALLY-APPOINTED JUDGES

ACTUARIAL REPORT

(including Cost Certificate)

AS AT DECEMBER 31, 1988

June 20, 1990

The Honourable Robert de Cotret
President of the Treasury Board
Ottawa, Canada
K1A 0R5

Sir:

Pursuant to section 6 of the Public Pensions Reporting Act, I have the honour to transmit my valuation report on an actuarial review as at December 31, 1988 of the pension plan established under the Judges Act. The report includes a cost certificate required in accordance with section 5 of the Public Pensions Reporting Act.

Subsection 9(1) of the Public Pensions Reporting Act requires a report, filed with the Minister while Parliament is sitting, to be laid before Parliament within thirty sitting days of its being filed. If Parliament is not then sitting, the Act requires the report to be laid before Parliament on any of the first thirty days thereafter that Parliament is sitting.

Respectfully submitted,

G.W. Poznanski
Chief Actuary

Canada

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APPENDICES

PUBLIC PENSIONS REPORTING ACT

Report on the Actuarial Review as at December 31, 1988
of the Pension Plan Established under the Judges Act

I. Introduction

Pursuant to paragraphs 3(1)(e) and 3(3)(a) of the Public Pensions Reporting Act
(PPRA), we have made an actuarial review as at December 31, 1988 of the pension
plan established under the Judges Act.

The last complete review was made as at December 31, 1985. However, in
accordance with section 4 of the PPRA, an interim review was made as at
December 31, 1987 to determine the effect of Bill C-88 which received Royal Assent
on December 17, 1987. Bill C-88 provided for salary increases not anticipated in the
review as at December 31, 1985. In addition, it repealed the provisions for suspending
annuity entitlements of surviving spouses upon remarriage and, upon marriage, of
surviving children between the ages of 18 and 25 while in full-time attendance at a
school or university. Moreover, previously suspended annuities became eligible for
reinstatement on and with effect from December 17, 1987.

For purposes of this report, as required by subsection 3(2) of the PPRA, the plan is
deemed to include the related benefits payable under the Supplementary Retirement
Benefits Act (inflation adjustments) and the related assets of the Supplementary
Retirement Benefits Account.

The cost certificate required by section 5 of the PPRA is included as Section II of this
report.

II. Cost Certificate

Based on the application of the actuarial methods and assumptions described in Sections IV and V to the data summarized in Appendices 7 and 8, the normal actuarial costs (i.e., the annual contributions required to provide benefits in respect of a specified year of future service) are estimated to be the following percentages of salary for the three years following the review date:

Year	Payable by Contributors* (%)	Effective Cost to Government (%)	Total Normal Cost (%)
1989	5.6	17.1	22.7
1990	5.7	17.9	23.6
1991	5.8	18.9	24.7

The corresponding unrecorded (unfunded) actuarial liability as at December 31, 1988 is estimated at $327.7 million. This unfunded actuarial liability could be amortized by 15 annual special payments beginning December 31, 1989 of $41.7 million.

A. Use of the Cost Certificate

As far as the financing of this pension plan is concerned, the normal cost shown in the cost certificate is of theoretical significance only. (The manner in which this plan is actually financed is described in Section III.) However, the cost certificate is useful because it presents theoretical costs under this pension plan in a manner similar to that used in showing costs for other pension plans sponsored by the federal government.

B. Current and Ultimate Costs

The theoretical normal cost and the actuarial liability estimate are considered to be realistic because they are based on dynamic economic assumptions which anticipate that the high real rates of interest (the excess of nominal interest rates over rates of price increases) available at the date of valuation will prevail for some time before an ultimate return to more traditional real rates of interest.

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*   Judges appointed prior to February 17, 1975 contribute 1.5% of salary. All other judges contribute 7% of salary.

The 1989 normal cost of 22.7% of salary is based on assumptions that reflect the current high real rates of interest. Therefore, this normal cost should not be considered an indicator of the long-term theoretical cost of the plan. In fact, if the ultimate economic assumptions (6% interest rates, 4.8% salary increases and 3.5% price increases) had been assumed to apply, beginning at the date of the valuation, then the 1989 normal cost would have been 32.4% of salary. The table shows gradually increasing normal costs in 1990 and 1991, reflecting mainly a partial transition to ultimate economic assumptions.

C. Variation of the Interest Assumption

The early recurrence of more traditional real rates of interest would raise both the normal cost and actuarial liability. Some protection against this contingency is provided by the margin (described in Section V under Economic Assumptions) in the assumed interest rates; if it were removed, total liabilities would be reduced by 10% and total normal cost by 13%.

The ultimate total normal cost of 32.4% of salary assumes a long-term real interest rate of approximately 2.5% which may be regarded as reasonably consistent with the return on long-term government bonds. If the real interest rate were more in line with the return on private sector pension funds, it would be reasonable to use an assumed interest rate one percentage point higher, in which case the ultimate total normal cost in 1989 would be 27.3% of salary.

III. Financing of the Plan

The actuarial method upon which the cost certificate of Section II is based assumes the development of a substantial pension "fund". The "fund" assets of any other pension plan sponsored by the government are normally held in a separate account for that plan. No such account exists for this pension plan (other than the relatively small sums deposited into the Supplementary Retirement Benefits (SRB) Account to the credit of the individual judges). In addition, normal costs recommended by the certificate have not been credited to any account. Therefore, it follows that this plan is not financed in accordance with the cost certificate.

Except for the minor SRB Account component, the plan is financed through the Consolidated Revenue Fund (CRF) on a current basis. The government makes periodic credits which, when combined with contributions made by the judges, are equivalent in amount and timing to the benefits paid out in accordance with the terms of the plan.

The estimated combined amounts to be credited to the CRF and SRB Account in each of the three years following the review date are the indicated percentages of salary:

Year	Payable by Contributors* (%)	Effective Cost to Government (%)	Total Contributions (%)
1989	5.6	15.2	20.8
1990	5.7	15.8	21.5
1991	5.8	16.4	22.2

Although somewhat lower than the total normal cost shown in Section II, the estimated contributions are still quite substantial. This can be attributed to the mature state of the plan, as evidenced by the large number of retired contributors and survivors relative to active contributors.

The balance of this report assumes that the plan is financed in accordance with the cost certificate shown in Section II.

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* Judges appointed prior to February 17, 1975 contribute 1.5% of salary. All other judges contribute 7% of salary.

IV. Actuarial Method

A. Service-related Benefits

The unit credit actuarial cost method was used to value those plan benefits that either vary directly with length of service or can reasonably be considered to do so. Under this method, the contributions in any year (normal cost) are sufficient to fund projected benefits in respect of service in that year; the corresponding actuarial liability is the actuarial present value of projected benefits accrued to the valuation date.

The principal benefit valued on the unit credit actuarial cost method is the immediate annuity (including any associated survivor annuity) payable on retirement. Recognizing that a judge normally continues as an active contributor for some time after becoming eligible for the full immediate annuity, it was considered appropriate for purposes of the valuation to assume that the annuity accrues uniformly from date of appointment to date of assumed retirement.

Both the normal cost and the actuarial liability can be affected by changes in the underlying economic and demographic assumptions. The normal cost is also subject to variations in the distribution of contributors by age, sex and relative salary. The actuarial liability is usually affected by net gains or losses from experience since the date of the previous valuation.

B. Other Benefits

With respect to certain ancillary benefits (disability pensions for judges and survivor pensions payable upon the pre-retirement deaths of judges) that do not vary by length of service, the normal cost for a year includes only the present value of benefits that will arise as a result of events expected to occur during that year. Given the nature of this method, there is no actuarial liability in respect of the ancillary benefits for active contributors.

Should the actual experience in any year with respect to the ancillary benefits differ from that assumed in calculating the one-year costs, the actuarial liability would be directly affected by gains or losses.

V. Actuarial Assumptions

This section describes the actuarial assumptions used in the valuation. They are, generally, the same assumptions used in the previous valuation, modified as noted to reflect appropriately the actual experience during the intervaluation period. The actuarial analysis supporting the more significant modifications is in Section IX.

A. Economic Assumptions

After consultation with the Department of Finance and the Treasury Board Secretariat, the Chief Actuary adopted these assumptions which are generally based on the February 1990 Budget:

Year	Rates of Interest			CPI Increases	January 1 Pension Indexing	Salary Increases
	New Money	Projected Fund Yield	Valuation Assumption			
	%	%	%	%	%	%
1989	10.0*	11.1*	10.1*	5.0*	4.1*	6.3
1990	10.2	11.0	10.0	4.7	4.7*	4.1
1991	9.4	10.8	9.8	5.1	4.8	3.8
1992	8.5	10.7	9.7	3.4	5.0	3.6
1993	7.9	10.6	9.6	3.2	3.8	3.9
1994	7.3	10.4	9.4	2.8	3.3	3.7
1995	6.8	10.2	9.2	3.0	2.9	4.0
1996	6.4	10.0	9.0	3.5	3.0	4.8
1997	6.1	9.7	8.7	3.5	3.4	4.8
1998	6.0	9.5	8.5	3.5	3.5	4.8
1999	6.0	9.3	8.3	3.5	3.5	4.8
2000	6.0	9.0	8.0	3.5	3.5	4.8
2001	6.0	8.7	7.7	3.5	3.5	4.8
2002	6.0	8.4	7.4	3.5	3.5	4.8
2003	6.0	8.1	7.1	3.5	3.5	4.8
2004	6.0	7.9	6.9	3.5	3.5	4.8
2005	6.0	7.6	6.6	3.5	3.5	4.8
2006	6.0	7.4	6.4	3.5	3.5	4.8
2007	6.0	7.3	6.3	3.5	3.5	4.8
2008	6.0	7.1	6.1	3.5	3.5	4.8
Ultimate	6.0	6.0**	6.0	3.5	3.5	4.8

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* These assumptions are based on actual experience.
** Projected fund yield declines from 6.9% in 2009 to 6.0% by 2015.

The projected fund yield shown in the table was developed for the combined funds of the Public Service, Canadian Forces and RCMP Superannuation Accounts. It was assumed that those Accounts would be increased to equal the liabilities of the three corresponding pension plans on January 1, 1991 and that no contributions would be received after 1990. The resulting projected fund yield was deemed appropriate for purposes of this valuation.

The valuation interest assumption for the years 1989 to 2008 was obtained by subtracting a 1% margin from the projected fund yield. Thereafter, this margin declines until the year 2015 when it disappears altogether.

B. Demographic Assumptions for Active Contributors

Appendix 2 shows the assumed rates of termination, disability, elective retirement, and mortality applicable to an active judge.

On the basis of experience since the last valuation, it was decided for all decrements, other than elective retirement, to retain the rates used in the previous valuation. The new rates of elective retirement are generally lower than the previous rates.

Because possible promotion (elevation to a higher court or to such positions as Chief Justice or Associate Chief Justice) occurs only infrequently, a promotional salary increase scale was not included in the valuation.

C. Demographic Assumptions for Former Contributors

With respect to retired judges in receipt of an annuity, the only decrement is death. Beginning with this valuation, the mortality assumptions take into account the expected continued future reductions in the rates of mortality at the various ages.

Appendix 3 shows the rates of mortality assumed applicable in 1989 to judges who were not disabled at time of retirement. Mortality rates for years subsequent to 1989 are obtained by applying the annual projection factors shown in Appendix 4 to the 1989 mortality rates.

A judge who retired on a disability pension can be expected to be subject to higher mortality rates than a judge who retired because of age. In this valuation it was assumed that a disabled judge would experience the same mortality as a non-disabled judge seven years older (compared to a three-year differential in the previous valuation).

D. Demographic Assumptions for Surviving Spouses

To estimate the value of surviving spouse pensions that will become payable in the future as the result of deaths among active and retired judges, it is essential to make an assumption as to what proportion of judges will leave an eligible spouse upon death. The "proportion married" shown in Appendix 5 is generally higher than was assumed in the previous valuation.

A secondary assumption in respect of surviving spouses concerns the average age of the surviving spouse at the date of death of the judge. The "average age of widow" of a retired judge, shown in Appendix 5, is higher than was assumed in the previous valuation; the opposite is true for the "average age of widower."

A surviving spouse was assumed to be subject to the same mortality as a former judge of the same sex who retired in good health.

E. Demographic Assumptions for Surviving Children
    and Eligible Students

Several assumptions must be made to estimate the value of pensions to surviving children and eligible students that will become payable in the future as the result of deaths among active and retired judges. The primary assumption concerns the number of children and eligible students surviving a judge or former judge. The expected number of such survivors shown in Appendix 6 is marginally higher for male judges than was assumed in the previous valuation, but is significantly lower in the case of female judges.

One secondary assumption concerns the average age of the surviving children and eligible students when a judge dies. The average ages shown in Appendix 6 differ from those used in the previous valuation.

Another secondary assumption is made as to the proportion of students remaining eligible for annuities at the end of each year of age. The proportion remaining eligible as shown in Appendix 6 is much higher than that assumed in the previous valuation.

The effect of mortality was ignored in determining the value of pensions payable to children and eligible students because the mortality at the relevant ages is negligible.

VI. Reconciliation of Membership

The following tables derived from the basic data show pertinent statistics concerning active contributors, retired contributors and surviving spouses during the years 1986 to 1988.

	Active Contributors	Retired Contributors		Survivors	
		Healthy	Disabled	Spouses	Children*
At December 31, 1985	799	131	25	224	13
Correction to data	(1)	-	-	-	-
New entrants	105	-	-	-	-
Compulsory retirements	(32)	32	-	-	-
Elective retirements	(8)	8	-	-	-
Deaths resulting in survivor pensions**	(22)	(19)	(7)	48	8
Deaths not resulting in survivor pensions	(1)	(13)	(2)	(44)	-
Loss of eligibility for survivor benefits	-	-	-	-	(8)
Reinstatements (Bill C-88)	-	-	-	6	-
Disabilities	(10)	-	10	-	-
Terminations	(2)	-	-	-	-
Return to active	1	(1)	-	-	-
At December 31, 1988	829	138	26	234	13

Detailed analysis of membership data at December 31, 1988 is in Appendices 7A, 7B, 8A and 8B.

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*   Includes eligible students.
**   There were 48 deaths resulting in 48 surviving spouses and 8 surviving children.

VII. Valuation Balance Sheet

The results for the valuation as at December 31, 1988 based on the actuarial method and the assumptions described in Sections IV and V are summarized below.

Assets		($ millions)
Balance in Supplementary Retirement Benefits Account in respect of judges		12.0
Total assets		12.0
Unfunded actuarial liability		327.7
		339.7

Liabilities		
Actuarial present value of prospective benefits to and in respect of active contributors		161.7
Actuarial present value of future benefits to persons receiving an annuity		
- Disabled former judges	20.5	
- Other former judges	81.8	
- Surviving spouses	75.5	
- Children and students	0.2	
		178.0
Total liabilities		339.7

VIII. Development of Unfunded Liability and Normal Cost

The previous valuation report presented results based on static economic assumptions. Only Appendix I of that report was based on dynamic economic assumptions as are used in this report. The $223.2 million unfunded liability from that Appendix has now risen by $104.5 million to $327.7 million.

Appendix I of the previous report did not show that the 1986 normal cost based on dynamic economic assumptions was 18.3% of salary and that the normal cost could be expected to rise to 21.4% of salary (an increase of 3.1% of salary) for the year 1989, principally as a result of the gradual transition from dynamic to ultimate economic assumptions. The actual 1989 normal cost of 22.7% of salary (see Section II) is somewhat greater than the previously expected 1989 normal cost.

The various factors reconciling the increases in the unfunded liability and total normal cost are shown in the following table.

	Unfunded Liability ($ millions)	Normal Cost (% of salary)
At December 31, 1985	223.2	18.3
Interest on unfunded liability	74.7	-
Partial transition to ultimate economic assumptions	-	3.1
Benefit payments made from Consolidated Revenue Fund	(64.4)	-
Normal cost payments (other than to SRB Account) not made	57.1	-
New entrants younger than expected	-	(0.5)
Experience gains and losses		
- Bill C-88 salary increases	25.2	-
- Elective retirements	(8.0)	-
- Proportion of eligible spouses	4.3	-
- Mortality of all pensioners and surviving spouses	(3.1)	-
- Bill C-88 reinstated spouses	1.7	-
- Active contributor mortality	(1.6)	-
- Disabilities	1.4	-
Subtotal	19.9	-
Change in actuarial assumptions		
- Proportion of eligible spouses	16.4	1.0
- Projected mortality	15.3	1.3
- Elective retirement	(10.2)	(0.8)
- Economic assumptions	6.7	(0.2)
- Average age of new widow(er)s	(3.8)	(0.2)
- Disability mortality rating-up	(1.7)	(0.2)
- Bill C-88 elimination of remarriage clause	0.2	0.1
Subtotal	22.9	1.0
Refinement of valuation program	(7.3)	0.8
Miscellaneous	1.6	-
At December 31, 1988	327.7	22.7

IX. Actuarial Analysis

Section VIII shows the actuarial gains and losses experienced by the plan during the three-year period ending December 31, 1988. It also shows the financial effect of the revisions made to the actuarial assumptions. This section examines the more significant items in some detail.

A. Impact of Bill C-88

By far the greatest impact of Bill C-88 was to increase salaries beyond what was expected on the basis of the assumptions used for the 1985 valuation; the resulting increase in unfunded liability was $25.2 million.

Effective December 17, 1987, Bill C-88 removed the clause under which pensions to surviving spouses were suspended on remarriage as well as a similar clause with respect to marriage of surviving eligible students. As a direct result, two actuarial assumptions made in the previous valuation were modified. The spouse remarriage rates were eliminated and the proportion of students remaining eligible for annuities at the end of each year of age was raised. However, the financial effect of these two modifications was negligible.

In addition, Bill C-88 provided that the eligibility of surviving spouses who had remarried prior to the passage of Bill C-88 should be restored. Although the reinstated spouses were not entitled to compensation in respect of omitted past payments, the increase in the unfunded liability as a result of the reinstatements was still $1.7 million.

B. Proportion of Eligible Spouses

In the previous valuation, the assumption as to the proportion of contributors leaving eligible spouses upon death made no distinction between male and female judges because there were few female judges.

Based on the assumption in the previous valuation, the 64 deaths recorded for active and retired judges during 1986, 1987 and 1988 should have yielded 38 surviving spouses. In fact, there were 48 surviving spouses; consequently, the plan's unfunded liability increased by $4.3 million.

Given that the existing assumption was inadequate in relation to recent experience and that the proportion of female judges is increasing rapidly, a new assumption varying by sex was developed for this valuation. The new assumption was based on the actual experience of the plan, data from the 1981

Census of Canada, and the corresponding assumption in the 1986 actuarial valuation of the Public Service Superannuation Act. Adopting the new assumption increased the unfunded liability by $16.4 million and the normal cost by 1.0% of salary.

C. Average Age of New Widow(er)s

The assumption used in the previous valuation with respect to the age of a widow at death of the contributor was considered to remain appropriate for male judges dying at ages 75 and under. However, at the higher ages, the assumed age of the widow was increased, based on data from the 1981 Census of Canada together with certain theoretical considerations. Conversely, the assumption with respect to the age of a new widower was generally revised downward at the higher ages, using similar procedures.

Since the majority of judges are male, it follows that the net result of the new assumption is a higher age for the surviving spouse. This, in turn, reduces the plan's unfunded liability (by $3.8 million) and normal cost (by 0.2% of salary).

D. Mortality of Pensioners, Surviving Spouses and Disability Pensioners

In the previous valuation, the mortality of pensioners (except those arising from disability) and surviving spouses was assumed to follow the 1983 GAM Table which was developed by the Society of Actuaries and is considered to be an appropriate representation of mortality experienced by pension plan members in 1983. The extra mortality of a disability pensioner was recognized by adding three years to the actual age and then applying the 1983 GAM Table.

During the three-year period since the last valuation, the mortality experience can be summarized as follows:

	Actual Deaths	Expected Deaths	Actual as % of Expected
Pensioners	32	31	103%
Surviving spouses	43	29	148%
Disability pensioners	9	4	225%
Total	84	64	131%

The extra mortality was financially favourable to the plan and caused the unfunded liability to decrease by $3.1 million.

After allowing for normal statistical fluctuations, it was decided that the 1983 GAM Table was an acceptable representation of the underlying mortality of pensioners (except those arising from disability) and surviving spouses during the calendar years 1986 to 1988. However, it is a static table that makes no allowance for future decreases in mortality. It is not a particularly appropriate standard for the mortality of future retirees and surviving spouses arising from the current active membership.

As described previously, a projected mortality approach was adopted to allow for falling mortality rates in the future.

The introduction of projected mortality raised the plan's unfunded liability by $15.3 million and its normal cost by 1.3% of salary.

In addition to introducing projected mortality, it was deemed appropriate to review the three-year age differential to recognize the extra mortality of disability pensioners. Based on the experience of other public sector plans and, to a small extent, on the limited experience shown previously, the differential was raised to seven years. The financial effect on the plan was a minor decrease in the unfunded liability and normal cost.

E.   Rates of Elective Retirement

The actual elective retirement experience during the three years since the last valuation was reasonably close to expected for ages 72 to 74. However, for ages 65 to 71, there were 12 fewer retirements than expected (2 actual; 14 expected). Since commencement of pension for these 12 judges has been delayed beyond the previously expected date, the elective retirement experience had a favourable financial impact on the plan, as shown by an $8.0 million decrease in the unfunded liability.

New rates of elective retirement were developed, giving 50% credibility to both the previous assumption and the graduated 1986-to-1988 experience. Implementing these new rates caused the unfunded liability to decrease by a further $10.2 million and the normal cost to decrease by 0.8% of salary.

F.   New Economic Assumptions

The economic assumptions made in the previous valuation for the post-1988 period were reviewed carefully and changed in light of informed forecasts available in early 1990.

For the years 1989 to 1997, all the economic assumptions made in the previous valuation were modified to some degree, based on the projections in the February 1990 Budget.

For 1998 and subsequent years (the "ultimate" period), the real rate of interest of approximately 2.5% illustrated in Appendix I (dynamic assumptions) of the previous report was retained. However, the real annual salary increases of 1.5% assumed previously were considered excessive in comparison to the 1.0% real increases anticipated. However, the future economic environment cannot be predicted with accuracy; it was therefore decided to reduce the real annual salary increase assumption from 1.5% to 1.3% rather than 1.0% for this valuation. If the current trends are confirmed at the next valuation, a further reduction may have to be made.

The nominal annual rates adopted in this report for the ultimate period are interest at 6%, salary increases at 4.8% and price increases at 3.5%. These nominal rates produce approximately the real rates.

The changes in the economic assumptions have caused both the unfunded liability and normal cost in respect of active contributors to decrease slightly; however, the unfunded liability for individuals in receipt of an annuity has risen appreciably. For the plan as a whole, the net result is an increase ($6.7 million) in the unfunded liability but a slight decrease (0.2% of salary) in the normal cost.

X. Data and Acknowledgments

The Office of the Registrar of the Supreme Court of Canada provided seriatim records showing basic data on Supreme Court judges, former judges and their survivors. Similar records for all other federally appointed judges, former judges and their survivors were provided by the Office of the Commissioner for Federal Judicial Affairs. All records were examined for consistency, interrelationships and general reasonableness with regard to individual members or survivors.

Information regarding the applicable portion of the balance in the Supplementary Retirement Benefits Account was obtained from the Office of the Comptroller General.

We wish to acknowledge the co-operation and able assistance received from these three Offices.
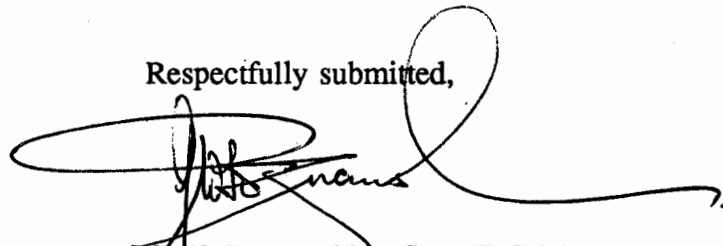
XI. Actuarial Opinion

In my opinion, for the purpose of this actuarial report:

(a) the data on which this report is based are sufficient and reliable,

(b) the assumptions that have been used are adequate and appropriate, and

(c) the methods that have been employed are consistent with sound actuarial principles.

This report has been prepared and this opinion has been given in accordance with generally accepted actuarial principles and the Recommendations of the Canadian Institute of Actuaries.

Respectfully submitted,

Z.W. Poznanski, F.S.A., F.C.I.A.
Chief Actuary

Ottawa, Canada
June 20, 1990

APPENDIX 1

Summary of provisions of the pension plan established
under the Judges Act and the relevant provisions of the
Supplementary Retirement Benefits Act

A. Coverage

Persons covered by this plan comprise:

(a) all judges appointed to federal and provincial courts by the Government of Canada,

(b) former judges who are entitled to annuities payable under the Judges Act, and

(c) surviving spouses and children who are entitled to annuities payable under the Judges Act.

B. Contributions from Judges and Credit from Government

By Contributor

The rates of contribution payable until retirement are as follows:

Date of Appointment

Before February 17, 1975	1.5% of salary to the Consolidated Revenue Fund (CRF).
After February 16, 1975	6% of salary to the CRF and 1% of salary to the Supplementary Retirement Benefits (SRB) Account.

By Government

The government makes these credits to the SRB Account:

(a) in each quarter, an amount equal to the total amount paid into the Account during that quarter by way of contributions in respect of current service rendered by contributors,

(b) in each quarter, an amount representing interest calculated on the monthly balance in the Account at a rate of interest representative of the yield on outstanding Government of Canada bonds having a term to maturity of five years, less 0.125%.

C. Summary of Benefits

(The explanatory notes to which reference is made herein are given in Section D of this Appendix.)

1) Active Contributors

Type of Termination	Benefit
Compulsory retirement because of age (Note 1)	Immediate annuity (Note 2), pro-rata reduction if less than 10 years of completed service (Note 3)
Elective retirement because of age (Note 1)*	Immediate annuity if at least 15 years of completed service; otherwise, return of contributions (Note 4)
Disability retirement	Immediate annuity
Resignation (Note 5)	Return of contributions
Death leaving no spouse or eligible children (Note 6)	Return of contributions to the estate
Death leaving spouse and/or eligible children	Annuity to surviving spouse and/or children (Notes 7 and 8)

2) Former Contributors Entitled to Immediate Annuities

Type of Termination	Benefit
Death leaving no spouse or eligible children	Residual benefit (Note 8)
Death leaving spouse and/or eligible children	Annuity to surviving spouse and/or children

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* Includes retirement before age 65 in the national interest or conducive to better administration of justice.

3) Indexing

Under the Supplementary Retirement Benefits Act (SRBA) benefit adjustments corresponding to increases in the Consumer Price Index are provided for persons in receipt of pensions payable from the Consolidated Revenue Fund (CRF), pursuant to various statutes. The SRBA applies to former judges and to surviving spouses and children entitled to annuities under the Judges Act.

For purposes of administering the SRBA, a Benefit Index is calculated in respect of each calendar year as the Benefit Index for the preceding year multiplied by the average of the Consumer Price Index for Canada for the 12-month period ending September 30 of that preceding year, divided by the average for a corresponding period one year earlier.

The supplementary benefit is calculated by multiplying the amount of the annuity to which the person is entitled under the Judges Act by the ratio of the Benefit Index for the year of payment to the Benefit Index for the year in which the person in respect of whose service the pension is payable ceased to be a member of the judiciary, and subtracting the amount of the annuity. However, for a pension arising from a retirement, death of an active contributor, or disability which occurs subsequent to June 21, 1982, the supplementary benefit is reduced appropriately to reflect the timing of such event within the calendar year.

Because of an anomaly in the SRBA, inflation protection benefits payable to or in respect of a former judge are not charged to the Supplementary Retirement Benefits (SRB) Account. In fact, a charge is made only in the event of a fairly uncommon occurrence (such as the death of an active judge leaving no survivors) upon which a full or partial return of the judge's SRBA contributions is payable. Until this anomaly is corrected, virtually all SRBA benefits payable in respect of this plan will be charged to the CRF even though all SRBA contributions and credits will be made to the SRB Account.

D. Explanatory Notes to Summary of Benefits in Section C of this Appendix

Note 1: Retirement because of age

"Compulsory retirement because of age" means ceasing to hold judicial office on reaching age 75. However, any judge appointed to a county court, the Federal Court of Canada or the Tax Court of Canada prior to March 1, 1987 has the right to elect to retain the compulsory retirement age of 70 to which that judge was subject before that date.

"Elective retirement because of age" means ceasing to hold judicial office on or after reaching age 65 but before reaching the applicable compulsory retirement age.

Both compulsory and elective retirement because of age apply only to a judge who is not being retired because of disability.

Note 2: Immediate annuity

"Immediate annuity" means an annuity that becomes payable immediately upon retirement or disability. The annual amount of the annuity is equal to two-thirds of the contributor's annual salary at the time that individual ceases to hold office, or of the current salary applicable to a Chief or Associate Chief Justice or Chief or Associate Chief Judge, if such office was formerly held. Annuities are payable pro-rata for any period less than one year and are paid in monthly instalments.

Note 3: Service

For purposes of the plan, "service" denotes holding "judicial office" which means the office of a judge of a superior or county court or of the Tax Court of Canada, and includes the office of a person who by virtue of section 60 of the Federal Court Act is a deputy judge. Superior court is interpreted to include the Supreme Court of Canada; county court includes any district court.

Note 4: Return of contributions

"Return of contributions" means payment of an amount equal to the total current service contributions paid by a contributor plus interest at the rate of 4% per annum to December 31 of the year immediately preceding the year in which the contributor ceased to hold judicial office. Interest is credited each December 31 on the accumulated contributions with interest as at the preceding December 31.

Note 5: Resignation

In this summary, "resignation" means ceasing to hold judicial office before reaching age 65, provided the judge is not being retired because of disability.

Note 6: Eligible children

Eligible children under age 25 include all children of the contributor under age 18, and any child of the contributor over age 18 and under 25 who is in full-time attendance at a school or university, having been in attendance substantially without interruption since he or she reached age 18 or the contributor died, whichever occurred later.

Note 7: Annuities to surviving spouse and children

Annuities to the surviving spouse and children of a contributor or former contributor are annuities that become payable immediately upon the death of the contributor. The annual amounts of the annuities are determined with reference to the contributor's salary or former contributor's pension and are payable in monthly instalments.

The annuity to the surviving spouse is equal to one-third of the annual salary of the deceased contributor at the time of death or to one-half of the former contributor's annuity at the time of death.

A surviving spouse is entitled to this annuity except under these circumstances:

(a) if at the date of the death of the judge, the surviving spouse was in receipt of an annuity granted under the Judges Act, or

(b) if the surviving spouse married the judge after the judge ceased to hold office.

As long as the deceased contributor's spouse survives, each eligible child receives an annuity equal to 20% of the spouse's annuity. Upon the spouse's subsequent death, each child's annuity is doubled.

If the deceased contributor is not survived by a spouse, each eligible child receives an annuity equal to 40% of the annuity which otherwise would have been granted to a surviving spouse.

The aggregate amount of annuity payable at any time to the eligible children of a deceased contributor shall not exceed four times the amount which would be payable to a single eligible child.

Note 8: Residual benefit

If on the death of a contributor there is no person to whom an annuity
provided under the terms of the Act may be paid, or if the persons to
whom such annuities may be paid die or cease to be entitled to them and
no other amount may be paid to those persons, a residual benefit may be
payable to the estate.

The residual benefit is equal to the amount by which the "return of contri-
butions" exceeds the aggregate of all amounts paid to those persons and to
the contributor.

The "return of contributions" is also payable to a judge who has
contributed at the rate of 1.5% of salary if at retirement or disability there
is no eligible spouse or child, or if at any time thereafter all such persons
have died or ceased to be eligible.

APPENDIX 2

Rates of Decrement for Active Contributors*

Age	Termination	Disability	Elective Retirement	Male Mortality	Female Mortality
35	.005	.001	-	.0009	.0005
36	.005	.001	-	.0009	.0005
37	.005	.001	-	.0010	.0005
38	.005	.001	-	.0010	.0006
39	.005	.001	-	.0011	.0006
40	.005	.001	-	.0012	.0007
41	.005	.001	-	.0014	.0007
42	.005	.001	-	.0015	.0008
43	.005	.001	-	.0017	.0008
44	.005	.001	-	.0019	.0009
45	.005	.001	-	.0022	.0010
46	.005	.001	-	.0025	.0011
47	.005	.001	-	.0028	.0012
48	.005	.001	-	.0031	.0014
49	.005	.001	-	.0035	.0015
50	.005	.001	-	.0039	.0016
51	.005	.001	-	.0043	.0018
52	.005	.001	-	.0048	.0019
53	.005	.001	-	.0052	.0021
54	.005	.001	-	.0057	.0023
55	-	.001	-	.0061	.0025
56	-	.001	-	.0066	.0028
57	-	.001	-	.0071	.0031
58	-	.001	-	.0077	.0034
59	-	.001	-	.0084	.0038
60	-	.001	-	.0092	.0042
61	-	.003	-	.0101	.0047
62	-	.005	-	.0111	.0052
63	-	.007	-	.0124	.0058
64	-	.009	-	.0139	.0064
65	-	.011	.001	.0156	.0071
66	-	.013	.005	.0176	.0078
67	-	.015	.010	.0198	.0087
68	-	.017	.015	.0222	.0097
69	-	.019	.020	.0248	.0109
70	-	-	.030	.0275	.0124
71	-	-	.040	.0304	.0141
72	-	-	.060	.0334	.0162
73	-	-	.080	.0367	.0185
74	-	-	.120	.0404	.0211

* In addition to the decrements shown above, active contributors are also subject to the decrement of compulsory retirement at age 75.

APPENDIX 3

Rates of mortality assumed applicable in 1989* for
non-disabled former judges and surviving spouses entitled to annuities

Age	Males	Females	Age	Males	Females
40	.0012	.0006	75	.0420	.0226
41	.0013	.0006	76	.0466	.0256
42	.0014	.0007	77	.0519	.0289
43	.0016	.0008	78	.0576	.0324
44	.0018	.0008	79	.0640	.0363
45	.0020	.0009	80	.0708	.0404
46	.0023	.0010	81	.0779	.0449
47	.0025	.0011	82	.0854	.0496
48	.0029	.0012	83	.0932	.0547
49	.0032	.0014	84	.1014	.0601
50	.0036	.0015	85	.1098	.0658
51	.0040	.0016	86	.1190	.0723
52	.0044	.0018	87	.1287	.0800
53	.0048	.0019	88	.1390	.0873
54	.0052	.0021	89	.1498	.0966
55	.0057	.0023	90	.1614	.1068
56	.0061	.0026	91	.1735	.1180
57	.0066	.0029	92	.1859	.1304
58	.0072	.0032	93	.1988	.1443
59	.0078	.0035	94	.2140	.1597
60	.0085	.0039	95	.2306	.1770
61	.0093	.0044	96	.2455	.1970
62	.0103	.0048	97	.2616	.2181
63	.0115	.0053	98	.2791	.2410
64	.0129	.0059	99	.2983	.2666
65	.0145	.0066	100	.3192	.2952
66	.0164	.0072	101	.3411	.3252
67	.0185	.0080	102	.3651	.3589
68	.0208	.0090	103	.3931	.3958
69	.0233	.0101	104	.4273	.4384
70	.0259	.0115	105	.4695	.4878
71	.0286	.0131	106	.5219	.5459
72	.0314	.0151	107	.5865	.6143
73	.0345	.0173	108	.6653	.6949
74	.0380	.0198	109	1.0000	1.0000

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*   See Appendix 4 for projection factors.

APPENDIX 4

Mortality Projection Factors

Age	Reduction % p.a. Males	Females	Age	Reduction % p.a. Males	Females
25	.10	.50	65	1.25	1.25
26	.18	.55	66	1.20	1.25
27	.26	.60	67	1.15	1.25
28	.34	.65	68	1.10	1.25
29	.42	.70	69	1.05	1.25
30	.50	.75	70	1.00	1.25
31	.55	.85	71	1.00	1.20
32	.60	.95	72	1.00	1.15
33	.65	1.05	73	1.00	1.10
34	.70	1.15	74	1.00	1.05
35	.75	1.25	75	1.00	1.00
36	.80	1.35	76	.95	1.00
37	.85	1.45	77	.90	1.00
38	.90	1.55	78	.85	1.00
39	.95	1.65	79	.80	1.00
40	1.00	1.75	80	.75	1.00
41	1.10	1.75	81	.75	1.00
42	1.20	1.75	82	.75	1.00
43	1.30	1.75	83	.75	1.00
44	1.40	1.75	84	.75	1.00
45	1.50	1.75	85	.75	1.00
46	1.50	1.70	86	.70	.95
47	1.50	1.65	87	.65	.90
48	1.50	1.60	88	.60	.85
49	1.50	1.55	89	.55	.80
50	1.50	1.50	90	.50	.75
51	1.45	1.50	91	.45	.70
52	1.40	1.50	92	.40	.65
53	1.35	1.50	93	.35	.60
54	1.30	1.50	94	.30	.55
55	1.25	1.50	95	.25	.50
56	1.25	1.45	96	.20	.40
57	1.25	1.40	97	.15	.30
58	1.25	1.35	98	.10	.20
59	1.25	1.30	99	.05	.10
60	1.25	1.25	100	-	-
61	1.25	1.25	101	-	-
62	1.25	1.25	102	-	-
63	1.25	1.25	103	-	-
64	1.25	1.25	104	-	-

APPENDIX 5

Proportion of Deceased Contributors Leaving Eligible Spouses and Average Age of Spouse Corresponding to Age of Contributor at Death

Age at Death	Males		Females	
	Proportion Married	Average Age of Widow	Proportion Married	Average Age of Widower
30	.64	29	.64	32
35	.72	34	.72	37
40	.80	38	.80	42
45	.83	43	.83	47
50	.85	47	.85	53
55	.88	52	.88	58
60	.89	56	.89	63
65	.87	61	.87	67
70	.84	65	.84	72
75	.78	70	.78	76
80	.70	75	.57	80
85	.60	80	.38	84
90	.48	84	.23	88
95	.37	87	.12	91
100	.26	89	.05	94

APPENDIX 6

Expected Number and Average Age of Surviving Children/ Eligible Students and Proportion of Students Entitled to Annuities

Contributor's Age at Death	Males		Females	
	Expected Number of Survivors*	Average Age of Survivors*	Expected Number of Survivors*	Average Age of Survivors*
30	1.04	5	1.16	5
35	1.46	8	1.53	8
40	1.57	11	1.56	14
45	1.40	16	1.29	17
50	1.09	18	.79	20
55	.60	21	.31	21
60	.26	21	.07	22
65	.06	22	.01	22
70	.01	22	-	-
75+	-	-	-	-

Proportion of Students Entitled to Annuities Remaining Eligible for Annuities at the End of the Year of Age

Age	Proportion
18	.84
19	.89
20	.90
21	.88
22	.86
23	.84
24	.79

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* In this context, "survivors" refers to surviving children and eligible students.

APPENDIX 7A

Number of Male Contributors as at December 31, 1988

Age Nearest Birthday	Completed Years of Service							All Durations
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	
35-39	2	-	-	-	-	-	-	2
40-44	12	3	-	-	-	-	-	15
45-49	29	18	3	-	-	-	-	50
50-54	36	42	24	4	-	-	-	106
55-59	52	72	53	28	-	-	-	205
60-64	29	41	69	34	9	2	-	184
65-69	11	21	38	36	12	9	1	128
70-74	1	5	19	15	20	10	1	71
75	-	-	1	-	2	2	-	5
All Ages	172	202	207	117	43	23	2	766

Average Age: 59.8 years

Average Service: 10.6 years

Average Salary*: $128,400

Total Payroll: $98,354,400

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* There is no discernible salary trend by either age or duration. Consequently the overall average salary of $128,400 is a reasonable estimate of the average salary in a typical age/service cell.

APPENDIX 7B

Number of Female Contributors as at December 31, 1988

Age Nearest Birthday	Completed Years of Service					All Durations
	0-4	5-9	10-14	15-19	20-24	
35-39	3	-	-	-	-	3
40-44	11	3	-	-	-	14
45-49	11	6	1	-	-	18
50-54	1	4	1	-	-	6
55-59	2	2	3	-	-	7
60-64	-	4	1	1	-	6
65-69	1	-	3	4	1	9
All Ages	29	19	9	5	1	63

Average Age: 51.0 years

Average Service: 6.6 years

Average Salary*: $129,000

Payroll: $8,127,000

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*   There is a weak tendency for salary to increase as service increases and as duration increases. Nevertheless, the overall average salary of $129,000 is a reasonable estimate of the average salary in a typical age/service cell.

APPENDIX 8A

Retired Contributors* as at December 31, 1988

Age Nearest Birthday	Other than Disability Pension			Disability Pension		
	Number	Annual Pension** Average ($)	Total ($)	Number	Annual Pension** Average ($)	Total ($)
55-59	-	-	-	2	82,500	165,000
60-64	1	44,000	44,000	5	92,400	462,000
65-69	2	99,000	198,000	4	77,500	310,000
70-74	8	78,500	628,000	10	71,800	718,000
75-79	56	79,500	4,452,000	5	80,600	403,000
80-84	47	74,100	3,484,000	-	-	-
85-89	18	79,700	1,434,000	-	-	-
90-94	5	76,400	382,000	-	-	-
95-99	1	41,000	41,000	-	-	-
All Ages	138	77,300	10,663,000	26	79,200	2,058,000

Average Age: 80.0 years   Average Age: 69.3 years

* All retired contributors are males.
** Amounts reflect accrued indexation (per the Supplementary Retirement Benefits Act) to and including January 1, 1989.

APPENDIX 8B

Survivors as at December 31, 1988

Age	Spouses* Number	Yearly Annuity** Average ($)	Yearly Annuity** Total ($)	Children* Number	Yearly Annuity** Average ($)	Yearly Annuity** Total ($)
15-19	-	-	-	2	7,000	14,000
20-24	-	-	-	10	8,200	82,000
25-44	-	-	-	1	7,000	7,000
45-49	1	41,000	41,000	-	-	-
50-54	4	38,000	151,000	-	-	-
55-59	7	35,600	249,000	-	-	-
60-64	25	39,200	979,000	-	-	-
65-69	30	37,100	1,113,000	-	-	-
70-74	30	35,200	1,056,000	-	-	-
75-79	43	33,200	1,429,000	-	-	-
80-84	40	33,600	1,343,000	-	-	-
85-89	39	31,300	1,222,000	-	-	-
90-94	11	29,900	329,000	-	-	-
95-99	4	26,000	104,000	-	-	-
All Ages	234	34,300	8,016,000	13	7,900	103,000

Average Age: 75.5 years   Average Age: 21.7 years

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*   All spouses are females whereas there are both male and female children.
** Amounts reflect accrued indexation (per the Supplementary Retirement Benefits
     Act) to and including January 1, 1989.