



## Actuarial Report on the Pension Plan for the Public Service of Canada as at 31 March 2005 **Errata, July 2007**

Editorial changes as well as corrections of some valuation results were made to the published version of the actuarial report on the Public Service pension plan as at 31 March 2005. The majority of the result corrections occurred within the RCA No. 1 Account and were caused by an incorrect transfer of the valuation results to the report itself. The pension Fund projection was also modified due to the omission of the negative cash flows attributable to the transfer payments out of the Fund. The remaining changes were editorial in nature.

1. Page 8, including the footnote, should read:

- The plan normal cost for the 2006 plan year is 18.01% of pensionable payroll<sup>1</sup>, which is \$2,809.4 million. The normal cost is estimated to increase marginally to 18.08% and 18.15% for the following two plan years.

### **D. Retirement Compensation Arrangements (RCA) Accounts Results**

- As at 31 March 2005, the RCA No. 1 Account had an actuarial excess of \$259.6 million.
- The RCA No. 1 Account normal cost for the 2007 plan year is 0.36% of pensionable payroll, that is \$56.8 million, and is estimated to be 0.36% and 0.35% of pensionable payroll respectively for the following two plan years.
- As at 31 March 2005, the RCA No. 2 Account had an actuarial deficiency of \$71.0 million.
- If the \$71.0 million RCA No. 2 Account actuarial deficiency were to be amortized, after taking into consideration the special payment of \$10.3 million made on 31 March 2006, in 11 equal annual instalments beginning on 31 March 2007, the instalments including interest would be \$7.0 million.

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<sup>1</sup> Pensionable payroll means the aggregate of pensionable earnings of all contributors with less than 35 years of service, except for members on leave without pay.



2. Page 18, Table 6 should read:

**Table 6 RCA Account Balance Sheet**  
As at 31 March 2005 (\$ millions)

	RCA No. 1	RCA No. 2
<b>Assets</b>		
RCA Account	481.2	834.4
Refundable tax	449.7	827.6
Excess of assets over actuarial liabilities	<b>259.6</b>	<b>(71.0)</b>
	<b>671.3</b>	<b>1,733.0</b>
<b>Actuarial liabilities</b>		
Pensionable earnings over the tax limit		
Active contributors	<b>370.0</b>	-
Pensioners	<b>51.2</b>	-
Survivor Allowance		
Active contributors	155.0	-
Pensioners	65.3	-
Waiver of pension reduction	6.9	-
Former deputy heads	22.9	-
Early Retirement Incentive	-	1,733.0
<b>Total actuarial liabilities</b>	<b>671.3</b>	<b>1,733.0</b>

3. Page 18, second last paragraph should read:

Since the last valuation on the RCA Account No. 1 as at 31 March 2002, the actuarial deficiency of \$485.2 million has become an actuarial excess of **\$259.6** million as at 31 March 2005. The significant financial position improvement is mainly the result of the 2005 Federal Budget that raised the maximum annual pension accrual in a registered pension plan from the current \$2,000 to \$2,111 for calendar year 2006, \$2,222 for calendar year 2007, \$2,333 for calendar year 2008 and to \$2,444 for calendar year 2009.

4. Page 19, Table 7 should read:

**Table 7 RCA Account Normal Costs**  
(\$ millions)

	Plan Year		
	2006	2007	2008
<b>Total Normal Cost</b>			
Pensionable earnings over tax limit	46.01	46.37	46.96
Survivor allowance	18.38	19.23	20.08
Deputy Head	<u>0.68</u>	<u>0.57</u>	<u>0.51</u>
<b>Total</b>	<b>65.07</b>	<b>66.17</b>	<b>67.54</b>
<b>Member Contributions</b>			
Pensionable earnings over tax limit	8.18	7.82	7.57
Deputy Head	<u>0.09</u>	<u>0.08</u>	<u>0.07</u>
<b>Total member contributions</b>	<b>8.28</b>	<b>7.90</b>	<b>7.64</b>
<b>Government Normal Cost</b>	<b>56.79</b>	<b>58.27</b>	<b>59.90</b>
Normal cost as % of total pensionable payroll	0.36%	<b>0.36%</b>	0.35%

5. Page 20, Table 8 should read:

**Table 8 Estimated Government Cost**

Plan Year	Normal Cost		Other Contributions <sup>1</sup> (\$ millions)	Total Cost	
	PSSA (\$ millions)	RCA (\$ millions)		(\$ millions)	(% of pensionable payroll)
2006	1,992.2	<b>56.8</b>	264.6	<b>2,313.6</b>	<b>14.83%</b>
2007	2,047.4	<b>58.3</b>	311.4	<b>2,417.1</b>	<b>14.80%</b>
2008	2,089.1	<b>59.9</b>	317.7	<b>2,466.7</b>	14.49%

6. Page 21, Appendix 1, first paragraph should read:

“The previous valuation report was based on the plan provisions as they stood after the enactment of Bill C-78 on 14 September 1999.”

7. Page 57, Table 19 should read:

**Table 19 Pension Fund Projection<sup>1</sup>**  
(\$ millions)

Plan Year	Beginning Market Value <sup>2</sup>	Beginning Liabilities	Current Services Cost	Payments <sup>3</sup>	Investment Earnings
2006	14,367	14,367	2,803	249	1,012
2007	17,933	17,933	2,946	331	1,208
2008	21,756	21,756	3,080	428	1,450
2009	25,858	25,858	3,217	541	1,736
2010	30,270	30,270	3,362	670	2,050
2011	35,012	35,012	3,520	815	2,395
2012	40,112	40,112	3,693	979	2,774
2013	45,600	45,600	3,879	1,163	3,188
2014	51,504	51,504	4,077	1,368	3,589
2015	57,802	57,802	4,289	1,591	4,017
2020	95,749	95,749	5,476	3,057	6,588
2025	146,045	146,045	6,916	5,181	9,985
2030	211,118	211,118	8,696	8,010	14,375
2035	292,982	292,982	10,688	12,302	19,864
2040	390,210	390,210	12,994	18,048	26,360
2045	503,350	503,350	15,768	24,968	33,914
2050	634,692	634,692	19,157	33,073	42,686

<sup>1</sup> For simplicity, expected special payments were not included in the projection.

<sup>2</sup> For projection purposes, the market value used is set equal to the beginning liability. As at 31 March 2005, the corresponding market value was \$14,673.5 million. This amount includes the present value of prior service contributions of \$428.6 million and \$120.0 million of Public Service Corporations contributions made after the valuation date.

<sup>3</sup> Include administrative expenses.

8. Page 66, Table 23 should read:

**Table 23 Male Contributors (Main Group)**  
**Number and Average Annual Earnings<sup>1</sup> as at 31 March 2004**

Age <sup>2</sup>	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	All Years of Service <sup>2</sup>
<25	2,190	17							2,207
	\$43,719	\$53,226							\$43,792
25-29	7,068	922	6						7,996
	\$50,816	\$58,087	\$53,823						\$51,657
30-34	6,486	3,048	810	22					10,366
	\$54,605	\$61,644	\$61,325	\$56,551					\$57,204
35-39	4,932	2,883	3,963	1,290	62				13,130
	\$56,958	\$63,327	\$65,226	\$63,762	\$61,250				\$61,541
40-44	4,586	2,485	4,139	4,186	2,584	178			18,158
	\$58,786	\$63,199	\$65,778	\$67,003	\$64,184	\$63,940			\$63,697
45-49	3,366	1,956	2,834	3,438	5,492	3,628	283		20,997
	\$59,540	\$63,214	\$65,572	\$68,558	\$69,692	\$64,768	\$61,935		\$65,764
50-54	2,354	1,307	1,969	2,339	3,675	6,479	4,251	192	22,566
	\$61,996	\$62,991	\$64,737	\$67,146	\$71,674	\$72,773	\$69,764	\$68,856	\$69,019
55-59	1,459	802	1,395	1,474	1,972	2,941	3,222	521	13,786
	\$64,653	\$64,726	\$65,226	\$67,535	\$70,701	\$76,182	\$80,008	\$74,075	\$72,293
60-64	475	344	495	587	663	742	744	273	4,323
	\$63,614	\$67,966	\$63,273	\$66,766	\$70,075	\$78,367	\$87,711	\$90,064	\$73,690
>65	98	82	100	116	111	119	117	78	821
	\$69,794	\$75,228	\$69,075	\$69,371	\$72,800	\$80,958	\$82,609	\$89,481	\$75,911
All Ages	33,014	13,846	15,711	13,452	14,559	14,087	8,617	1,064	114,350
	\$55,653	\$62,791	\$65,130	\$67,166	\$69,357	\$71,675	\$75,061	\$78,365	\$64,566
						<u>31 March 2004</u>		<u>31 March 2001</u>	
				Average age <sup>2</sup> :		44.7 years		44.3 years	
				Average pensionable service <sup>2</sup> :		13.8 years		14.1 years	
				Annualized pensionable payroll <sup>3</sup> :		\$7,299,760,955		\$5,841,284,041	
				Total PBDA <sup>4</sup> indexed reduction to basic annuity:		\$8,249,364		\$9,079,288	
				Total PBDA <sup>4</sup> indexed reduction adjustment:		\$1,877,687		\$2,014,358	

<sup>1</sup> As defined in Note 1 of Appendix 2-D.

<sup>2</sup> Expressed in completed years calculated at the beginning of the plan year.

<sup>3</sup> The aggregate pensionable earnings of all contributors with less than 34 years of pensionable service.

<sup>4</sup> PBDA means the *Pension Benefits Division Act*.

9. Page 67, Table 24 should read:

**Table 24 Female Contributors (Main Group)**

**Number and Average Annual Earnings<sup>1</sup> as at 31 March 2004**

Age <sup>2</sup>	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	All Years of Service <sup>2</sup>
<25	3,316	30							3,346
	\$41,485	\$46,471							\$41,530
25-29	10,086	1,246	5						11,337
	\$48,716	\$52,803	\$57,987						\$49,169
30-34	8,125	3,614	1,380	87					13,206
	\$51,000	\$57,392	\$55,001	\$51,936					\$53,174
35-39	6,266	3,255	4,835	2,276	174				16,806
	\$50,780	\$56,295	\$58,976	\$55,590	\$57,662				\$54,929
40-44	6,008	3,289	4,485	4,741	4,316	528			23,367
	\$49,618	\$52,930	\$58,044	\$59,414	\$55,879	\$55,508			\$54,979
45-49	4,571	2,902	3,696	3,545	5,294	4,951	680		25,639
	\$49,584	\$52,398	\$55,410	\$59,027	\$60,043	\$56,852	\$56,932		\$55,806
50-54	2,855	2,031	2,885	2,864	3,250	4,218	3,587	279	21,969
	\$49,538	\$51,477	\$53,841	\$55,535	\$58,625	\$62,300	\$60,093	\$55,282	\$56,655
55-59	1,326	1,070	1,642	1,773	1,963	1,540	1,072	305	10,691
	\$48,421	\$50,495	\$51,678	\$52,993	\$54,688	\$60,336	\$64,470	\$56,312	\$54,588
60-64	364	300	491	528	559	337	175	67	2,821
	\$47,139	\$49,636	\$49,952	\$51,722	\$52,737	\$57,131	\$55,921	\$57,235	\$51,839
>65	58	53	64	71	78	61	20	19	424
	\$48,425	\$52,638	\$53,607	\$51,658	\$50,480	\$53,503	\$56,977	\$58,102	\$52,221
All Ages	42,975	17,790	19,483	15,885	15,634	11,635	5,534	670	129,606
	\$49,141	\$53,977	\$56,183	\$57,033	\$57,591	\$59,218	\$60,409	\$56,026	\$54,271

	<u>31 March 2004</u>	<u>31 March 2001</u>
Average age <sup>2</sup> :	42.9 years	42.2 years
Average pensionable service <sup>2</sup> :	12.0 years	11.6 years
Annualized pensionable payroll <sup>3</sup> :	\$6,996,342,891	\$5,231,051,541
Total PBDA <sup>4</sup> indexed reduction to basic annuity:	\$1,031,620	\$920,166
Total PBDA <sup>4</sup> indexed reduction adjustment:	\$304,536	\$269,984

<sup>1</sup> As defined in Note 1 of Appendix 2-D.

<sup>2</sup> Expressed in completed years calculated at the beginning of the plan year.

<sup>3</sup> The aggregate pensionable earnings of all contributors with less than 34 years of pensionable service.

<sup>4</sup> PBDA means the *Pension Benefits Division Act*.

10. Page 68, Table 25 should read:

**Table 25 Male Contributors (Operational Service Group)**  
**Number and Average Annual Earnings<sup>1</sup> as at 31 March 2004**

Age <sup>2</sup>	0-4	5-9	10-14	15-19	20-24	25-29	30-34	All Years of Service
<25	83							83
	\$40,037							\$40,037
25-29	519	70						589
	\$42,922	\$50,409						\$43,812
30-34	579	409	57					1,045
	\$44,940	\$53,502	\$55,762					\$48,881
35-39	214	300	230	136	1			881
	\$47,655	\$54,690	\$56,615	\$57,518	\$57,365			\$53,923
40-44	9	96	187	325	114	11		742
	\$48,541	\$55,746	\$58,536	\$58,832	\$58,806	\$54,299		\$58,162
45-49	2	3	75	227	329	309	13	958
	\$47,317	\$53,120	\$58,999	\$59,206	\$60,753	\$58,327	\$63,333	\$59,449
50-54	1		5	86	184	363	184	823
	\$55,115		\$59,161	\$58,345	\$60,687	\$61,029	\$63,405	\$61,185
55-59		1	1	4	58	172	114	350
		\$52,750	\$54,860	\$59,811	\$59,150	\$62,186	\$65,236	\$62,601
60-64			1	1		17	21	40
			\$56,916	\$56,577		\$62,327	\$62,194	\$61,978
>65					1			1
					\$74,881			\$74,881
All Ages	1,407	879	556	779	687	872	332	5,512
	\$44,353	\$53,904	\$57,516	\$58,660	\$60,293	\$60,240	\$63,955	\$54,906

	31 March 2004	31 March 2001
Average age <sup>2</sup> :	40.9 years	40.0 years
Average pensionable service <sup>2</sup> :	14.2 years	13.6 years
Annualized pensionable payroll <sup>3</sup> :	\$302,643,886	\$275,424,471
Total PBDA <sup>4</sup> indexed reduction to basic annuity:	\$507,056	\$570,827
Total PBDA <sup>4</sup> indexed reduction adjustment:	\$135,570	\$157,803

<sup>1</sup> As defined in Note 1 of Appendix 2-D.

<sup>2</sup> Expressed in completed years calculated at the beginning of the plan year.

<sup>3</sup> The aggregate pensionable earnings of all contributors with less than 34 years of pensionable service.

<sup>4</sup> PBDA means the *Pension Benefits Division Act*.

11. Page 69, Table 26 should read:

**Table 26 Female Contributors (Operational Service Group)**  
**Number and Average Annual Earnings<sup>1</sup> as at 31 March 2004**

Age <sup>2</sup>	0-4	5-9	10-14	15-19	20-24	25-29	30-34	All Years of Service
<25	88							88
	\$41,020							\$41,020
25-29	430	82						512
	\$46,201	\$51,852						\$47,106
30-34	353	364	64					781
	\$49,337	\$56,353	\$52,035					\$52,828
35-39	142	212	183	82	3			622
	\$49,451	\$55,538	\$58,642	\$57,373	\$67,376			\$55,360
40-44	3	80	138	212	113	7		553
	\$43,083	\$55,902	\$57,906	\$59,829	\$59,118	\$46,651		\$58,378
45-49	1	3	71	129	112	81	4	401
	\$54,860	\$58,693	\$52,456	\$58,645	\$65,356	\$52,791	\$50,308	\$58,149
50-54		1	4	54	80	54	29	222
		\$50,721	\$47,006	\$56,174	\$63,425	\$61,207	\$51,183	\$59,170
55-59	1		4	1	34	19	2	61
	\$37,965		\$60,384	\$37,377	\$56,863	\$59,734	\$44,888	\$56,966
60-64						3	3	6
						\$61,626	\$72,239	\$66,933
>65				1				1
				\$39,733				\$39,733
All Ages	1,018	742	464	479	342	164	38	3,247
	\$47,285	\$55,576	\$56,480	\$58,589	\$62,017	\$56,266	\$52,422	\$54,227

	31 March 2004	31 March 2001
Average age <sup>2</sup> :	37.4 years	36.2 years
Average pensionable service <sup>2</sup> :	10.5 years	9.3 years
Annualized pensionable payroll <sup>3</sup> :	\$176,319,671	\$141,965,819
Total PBDA <sup>4</sup> indexed reduction to basic annuity:	\$15,753	\$13,514
Total PBDA <sup>4</sup> indexed reduction adjustment:	\$4,805	\$4,211

<sup>1</sup> As defined in Note 1 of Appendix 2-D.

<sup>2</sup> Expressed in completed years calculated at the beginning of the plan year.

<sup>3</sup> The aggregate pensionable earnings of all contributors with less than 34 years of pensionable service.

<sup>4</sup> PBDA means the *Pension Benefits Division Act*.



12. Page 70, Table 27 should read:

**Table 27 Contributors on Leave Without Pay and Non-active Contributors**  
**Number and Average Annual Earnings<sup>1</sup> as at 31 March 2004**

Age <sup>2</sup>	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	All Years of Service
<25	262	2							264
	\$41,220	\$45,582							\$41,253
25-29	1,500	270	1						1,771
	\$46,607	\$50,721	\$37,365						\$47,229
30-34	1,629	1,031	280	13					2,953
	\$50,301	\$56,254	\$55,647	\$51,363					\$52,891
35-39	866	782	873	252	8				2,781
	\$50,992	\$57,534	\$59,184	\$54,976	\$49,762				\$55,761
40-44	604	465	560	468	272	21			2,390
	\$46,989	\$52,220	\$57,291	\$57,370	\$54,356	\$53,271			\$53,347
45-49	420	312	381	336	394	282	23		2,148
	\$44,900	\$50,310	\$52,358	\$56,292	\$57,315	\$53,419	\$62,539		\$52,375
50-54	274	228	252	252	311	390	241	12	1,960
	\$44,042	\$45,926	\$51,029	\$54,022	\$56,226	\$60,456	\$59,408	\$52,462	\$53,583
55-59	180	136	201	166	206	193	133	13	1,228
	\$42,663	\$49,151	\$52,263	\$54,317	\$58,123	\$60,974	\$70,992	\$59,817	\$55,249
60-64	67	77	88	83	81	78	22	6	502
	\$42,450	\$45,860	\$47,551	\$48,111	\$56,213	\$64,325	\$68,765	\$69,784	\$51,903
>65	22	11	7	5		2			47
	\$36,523	\$39,193	\$43,167	\$48,872		\$59,258			\$40,419
All Ages	5,824	3,314	2,643	1,575	1,272	966	419	31	16,044
	\$47,638	\$53,673	\$55,682	\$55,335	\$56,429	\$58,659	\$63,748	\$58,899	\$52,768

	31 March 2004	31 March 2001
Average age <sup>2</sup> :	41.0 years	41.5 years
Average pensionable service <sup>2</sup> :	10.0 years	10.3 years
Annualized pensionable payroll <sup>3</sup> :	\$844,790,878	\$514,405,351
Total PBDA <sup>4</sup> indexed reduction to basic annuity:	\$339,714	\$314,696
Total PBDA <sup>4</sup> indexed reduction adjustment:	\$84,430	\$72,910

<sup>1</sup> As defined in Note 1 of Appendix 2-D.

<sup>2</sup> Expressed in completed years calculated at the beginning of the plan year.

<sup>3</sup> The aggregate pensionable earnings of all contributors with less than 34 years of pensionable service.

<sup>4</sup> PBDA means the *Pension Benefits Division Act*.

13. Page 80, Table 37 should read:

**Table 37 Assumed Rates of Pensionable Disability**  
(per 1,000 individuals)

<u>Age<sup>1</sup></u>	<u>Male</u>	<u>Female</u>
to 25	0.2	0.1
26	0.2	0.1
27	0.2	0.1
28	0.2	0.2
29	0.2	0.2
30	0.2	0.3
31	0.2	0.4
32	0.2	0.4
33	0.2	0.5
34	0.3	0.5
35	0.3	0.7
36	0.4	0.7
37	0.6	0.9
38	0.6	1.0
39	0.7	1.1
40	0.8	1.5
41	0.9	1.5
42	1.0	1.7
43	1.0	1.8
44	1.2	2.1
45	1.6	2.3
46	1.7	2.6
47	1.8	2.8
48	2.2	3.3
49	2.6	3.6
50	2.9	3.9
51	3.2	4.3
52	3.7	4.7
53	4.0	5.2
54	4.3	5.8
55	4.4	6.4
56	4.9	7.1
57	5.5	7.8
58	6.2	8.6

<sup>1</sup> Expressed in completed years calculated at the beginning of the plan year.

14. Page 81, Table 38 should read:

<b>Table 38 Assumed Mortality Rates</b>						
Plan Year 2006 (per 1,000 individuals)						
Age <sup>1</sup>	<u>Members and Retirement Pensioners</u>		<u>Disability Pensioners</u>		<u>Surviving Spouses</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
20	0.3	0.2	2.9	6.1	0.9	0.3
25	0.4	0.3	5.7	6.7	1.0	0.4
30	0.6	0.4	8.8	7.3	1.1	0.5
35	0.8	0.4	11.8	7.7	1.4	0.7
40	1.1	0.5	13.7	8.0	1.7	0.9
45	1.4	1.1	16.1	8.7	2.4	1.4
50	2.1	1.5	19.7	9.2	3.6	2.1
55	3.4	2.3	21.3	12.1	6.2	3.1
60	6.4	4.3	24.9	13.9	10.9	5.6
65	12.8	8.3	33.9	19.5	17.6	9.7
70	22.1	13.4	52.5	28.8	27.4	14.8
75	39.0	22.5	72.1	42.8	44.1	24.9
80	67.5	42.0	104.9	67.0	72.7	42.5
85	109.1	76.6	149.2	110.1	115.6	74.7
90	168.1	127.3	208.3	178.9	176.3	125.6
95	251.8	192.2	315.5	281.3	255.2	208.5
100	351.4	315.4	476.3	441.9	353.8	317.2
105	500.0	500.0	500.0	500.0	500.0	500.0
110	500.0	500.0	500.0	500.0	500.0	500.0
115	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

<sup>1</sup> Expressed in completed years calculated at the beginning of the plan year.

15. Page 83, Table 40 should read:

**Table 40 Assumptions for Survivor Allowance to Spouse**  
 Probability a member will have an eligible spouse at death  
 (per 1,000 member deaths)

Age of Deceased Member <sup>1</sup>	Sex of Deceased Member			
	Male		Female	
	Number	Age Difference Between Spouses	Number	Age Difference Between Spouses
20	215	(1)	565	1
25	340	(1)	565	1
30	429	(1)	565	1
35	483	(1)	565	2
40	569	(2)	565	3
45	665	(2)	565	2
50	742	(3)	565	3
55	785	(3)	565	3
60	799	(3)	515	3
65	793	(3)	467	2
70	767	(3)	390	0
75	716	(3)	300	1
80	642	(4)	193	(1)
85	534	(5)	93	(3)
90	396	(7)	40	(4)
95	248	(8)	15	(6)
100	97	(8)	1	(6)

<sup>1</sup> Expressed in completed years calculated at the beginning of the plan year.