

February 2007

**THE CONTRIBUTORY PENSION PLAN  
FOR SALARIED EMPLOYEES OF  
MCMASTER UNIVERSITY INCLUDING  
MCMASTER DIVINITY COLLEGE 2000**

Report on the Actuarial Valuation for  
Funding Purposes as at July 1, 2006

**MERCER**

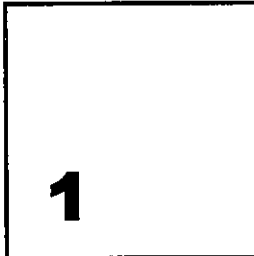
Human Resource Consulting

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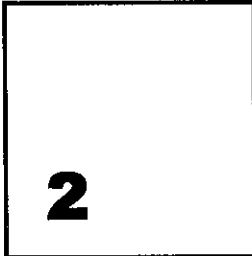
### Summary of Results (\$000)

<b>Going-Concern Financial Position</b>	<b>01.07.06</b>	<b>01.07.03</b>
Actuarial value of assets	\$891,457	\$843,400
Actuarial liability	\$970,516	\$786,768
Funding excess (shortfall)	(\$79,059)	\$56,632
<b>Solvency Financial Position</b>	<b>01.07.06</b>	<b>01.07.03</b>
Adjusted solvency assets	\$948,061 <sup>1</sup>	\$830,851
Adjusted solvency liability	\$941,948	\$729,639
Solvency excess (deficiency)	\$6,113	\$101,212
Ratio of solvency assets to solvency liabilities	0.97	0.95
<b>Wind-Up Financial Position</b>	<b>01.07.06</b>	<b>01.07.03</b>
Market value of assets (net of termination expenses)	\$911,896	\$724,660
Total wind-up liability	\$985,908	\$833,874
Wind-up excess (deficiency)	(\$74,012)	(\$109,214)
Transfer ratio	0.92	0.95

<sup>1</sup> Including the present value of the next 5 years' going-concern special payments of \$36,165,000. This present value is excluded to calculate the ratio of solvency assets to solvency liabilities.

## Summary of Results (cont'd) (\$000)

Funding Requirements (annualized)	2006/2007	2003/2004
Total current service cost	\$38,574	\$29,810
Estimated members' required contributions	(\$10,884)	(\$7,308)
Estimated employer's current service cost	\$27,690	\$22,502
Employer's current service cost as a percentage of members' required contributions	254%	308%
Minimum special payments	\$8,168	\$0
Estimated minimum employer contribution for year	\$35,858	\$0
Estimated maximum employer contribution for year	\$106,749	\$131,716



## **Introduction**

Report on the Actuarial Valuation as at July 1, 2006

### **To McMaster University**

At the request of McMaster University, (the "University"), we have conducted an actuarial valuation of the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000 (the "Plan") as at July 1, 2006. We are pleased to present the results of the valuation.

The purposes of this valuation are to determine:

- the funded status of the Plan as at July 1, 2006 on going-concern and solvency bases, and
- the minimum funding requirements from 2006/2007.

The next actuarial valuation of the Plan will be required as at a date not later than July 1, 2009 or as at the date of an earlier amendment to the Plan, in accordance with the minimum requirements of the *Pension Benefits Act of Ontario*.

There is a funding shortfall of \$79,059,000 and no special payments are required for solvency purposes at July 1, 2006. As such, the minimum monthly contributions to be remitted to the Plan from July 1, 2006 to July 1, 2009 are as follows:

### **Minimum Monthly Employer Contributions**

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For current service:

July 1, 2006 – June 30, 2007: 254% of members' required contributions

July 1, 2007 – June 30, 2008: 209% of members' required contributions

July 1, 2008 – June 30, 2009: 198% of members' required contributions

PLUS

Minimum special payments for unfunded liability: \$680,632

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The minimum contribution requirements based on this report exceed the minimum contribution requirements recommended in the previous valuation report. Upon filing this report, McMaster University must contribute the excess, if any, of the minimum contribution recommended in this report over contributions actually made in respect of the period following July 1, 2006. This contribution, along with an allowance for interest, is due no later than 60 days following the date this report is filed.

The maximum contributions that McMaster University may make to the Plan in 2006/2007 is \$106,749,000 which is comprised of the McMaster University current service cost plus the greater of the going-concern funding shortfall and the wind-up deficiency.

As at July 1, 2003, an asset transfer valuation report was prepared and filed with the Financial Services Commission of Ontario. This asset transfer, in respect of members who joined the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College (the "Original Plan") between January 1, 2001 and January 14, 2003, was approved and the assets were actually transferred in June 2005. The comparative results in this valuation reflect the position of the Plan as at July 1, 2003 after the asset transfer as shown in the asset transfer valuation report dated February 2004.

This valuation reflects the provisions of the Plan as at July 1, 2006. The Plan has been amended since the date of the previous valuation. The required employee contribution rates have been increased and the early retirement provisions have been amended for certain member groups. These amendments have resulted in a reduction in the going-concern liability of \$1,300,000 and of \$1,900,000 in the employer current service cost. In addition, a two year vesting requirement was added for Plan members hired after specific

dates who terminate before retirement eligibility. A summary of the Plan provisions, including a description of the amendments, is provided in Appendix D.

We have modified most of the going-concern valuation assumptions as compared to those used for the valuation as at July 1, 2003, as follows:

- the pensionable earnings increase assumption was reduced from 5.50% to 5.25% per year;
- the YMPE increase assumption was reduced from 4.50% to 4.25% per year;
- the CRA limits were changed to reflect the 2005 federal budget and the increase assumption was reduced from 4.50% to 4.25% per year;
- the mortality table was changed to UP94 (projected with mortality improvements to 2015) from GAM83; and
- the percentage of members assumed to retire at their earliest unreduced age was increased to 25%, from 13% assumed in the previous valuation.

These changes have resulted in an increase of \$41,900,000 in the going-concern actuarial liability and of \$2,200,000 in the employer current service cost. All other going-concern actuarial assumptions and methods remain unchanged from the previous valuation.

The solvency and wind-up assumptions have been updated to reflect market conditions at the valuation date. The solvency liabilities exclude the value of post-retirement indexing benefits.

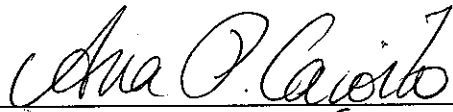
All assumptions made for the purposes of the valuation were reasonable at the time the valuation was prepared. All actuarial assumptions and methods are described in detail in Appendix B.

We have assumed that all Plan assets are available to cover the Plan liabilities presented in this report.

Effective December 12, 2006 the Plan is amended to remove the requirement for University consent for a member to postpone his retirement and the receipt of his pension. This amendment is not expected to have a material impact on the accrued liabilities at July 1, 2006 or on the current service cost, and has not been reflected in this valuation. To the best of our knowledge, there have been no other events subsequent to the valuation date which, in our opinion, would have a material impact on the results of the valuation.

This report will be filed with the Financial Services Commission of Ontario and with the  
Canada Revenue Agency.

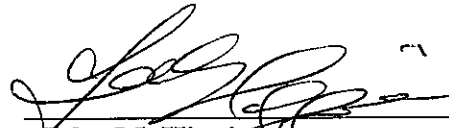
Respectfully submitted,



**Ana P. Caçoiló**  
Fellow of the Society of Actuaries  
Fellow of the Canadian Institute of  
Actuaries

<sup>23</sup>  
February 16, 2007

\_\_\_\_\_  
Date



**John M. Higgins**  
Fellow of the Society of Actuaries  
Fellow of the Canadian Institute of  
Actuaries

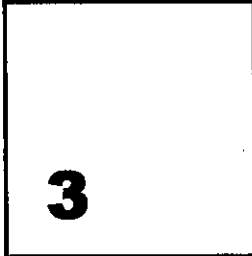
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February 16, 2007

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Date

***The Contributory Pension Plan for Salaried Employees of McMaster University  
Including McMaster Divinity College 2000***

Registration number with the Financial Services Commission of Ontario and with the Canada Revenue  
Agency: 1079920





## **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 July 1, 2006, in comparison with those of the previous valuation as at July 1, 2003, are summarized as follows:

### Financial Position — Going-Concern Basis (\$000)

	01.07.06	01.07.03
Market value of assets (adjusted for in-transit items)	\$912,846	\$719,900
Smoothing adjustment	(\$21,389)	\$117,855
Asset transfer	-	\$5,645
Actuarial value of assets	\$891,457	\$843,400
Actuarial liability		
Present value of accrued benefits for:		
▪ active members	\$541,399	\$433,685
▪ pensioners and survivors	\$408,665	\$331,611
▪ deferred pensioners	\$20,416	\$21,396
▪ additional voluntary contributions	\$36	\$76
Total liability	\$970,516	\$786,768
Funding excess / (shortfall)	(\$79,059)	\$56,632

## Reconciliation of Financial Position

The Plan's financial position, a funding shortfall of \$79,059,000 as at July 1, 2006, is reconciled with its previous position, a funding excess of \$56,632,000 as at July 1, 2003, as follows:

### Reconciliation of Financial Position (\$000)

Funding excess / (shortfall) as at 01.07.03	\$56,600
Interest on funding excess / (shortfall) at 6.5% per year to 01.07.06	\$11,800
University contributions less than current service cost	(\$47,000)
Net experience gains (losses) over 2003-2006 *	(\$57,600)
Impact of changes in assumptions	(\$41,900)
Impact of Plan amendments	\$1,300
Net impact of other elements of gains and losses	(\$2,300)
Funding excess / (shortfall) as at 01.07.06	(\$79,100)

\* Net experience gains (losses) are detailed below.

## Plan Experience

The main assumptions are compared with actual experience since the previous valuation as at July 1, 2003:

### Plan Experience

	<b>Assumption</b>	<b>Actual 2003-2006</b>	<b>Impact Gain (Loss)</b>
Net Investment return	6.5%/year	3.9%/year	(\$68,700)
Increases in pensionable earnings	5.5%/year	5.2%/year	} \$9,500
Increases in YMPE	4.5%/year	1.8%/year	
Increase in maximum pension	\$2,090 in 2006	\$2,111 in 2006	(\$3,000)
Indexation	2.0%/year	0%, 0%, 0.19%	\$20,900
Retirements			(\$6,400)
Terminations of employment			\$5,800
Mortality (post-retirement)	97 deaths	60 deaths	(\$15,700)
Net experience gains (losses)			(\$57,600)

## Valuation Results — Solvency Basis

When conducting a solvency valuation, we determine the relationship between the respective values of the Plan's assets and its liabilities on a solvency basis, determined in accordance with the *Pension Benefits Act of Ontario*. The values of the Plan's assets and liabilities on a solvency basis are related to the corresponding values calculated as though the Plan were wound up and settled on the valuation date.

### Financial Position on a Solvency Basis

The Plan's solvency position as at July 1, 2006, in comparison with that of the previous valuation as at July 1, 2003, is determined as follows:

#### Solvency Position (\$000)

	01.07.06	01.07.03
Market value of assets (adjusted for in-transit items)	\$912,846	\$725,545
Termination expenses	(\$950)	\$(885)
a. Solvency assets	\$911,896	\$724,660
Solvency asset adjustment:		
Averaging method adjustment	\$0	\$106,191
b. Adjusted solvency assets	\$911,896	\$830,851
Present value of special payments for next five years	\$36,165	\$0
c. Adjusted solvency assets including the present value of special payments for next five years	\$948,061	\$830,851
Actuarial liability		
Present value of accrued benefits for:		
▪ active members	\$528,963	\$429,710
▪ pensioners and survivors	\$391,353	\$309,985
▪ deferred pensioners	\$21,596	\$21,297
▪ additional voluntary contributions	\$36	\$76
d. Solvency liabilities	\$941,948	\$761,068
Solvency liability averaging method adjustment	\$0	\$(31,429)
e. Adjusted solvency liability	\$941,948	\$729,639
Solvency excess / (deficiency) created as at valuation date (c - e)	\$6,113	\$101,212
f. Value of excluded benefits	\$43,960	\$72,806
g. Solvency liabilities before exclusion of benefits (d + f)	\$985,908	\$833,874
Transfer ratio <sup>1</sup>	0.92	0.95
Ratio of solvency assets to solvency liabilities (a ÷ d)	0.97	0.95

<sup>1</sup> Equal to (a ÷ d) prior to July 1, 2006 and (a ÷ g) on and after July 1, 2006.

### Payment of Benefits

Since the transfer ratio is less than one, the Plan administrator should ensure that the monthly special payments are sufficient to meet the requirements of the *Pension Benefits Act of Ontario* to allow for the full payment of benefits. Otherwise, the Plan administrator should take the actions prescribed by the *Act*.

### Financial Position on a Wind-Up Basis

The Plan's hypothetical wind-up position as of July 1, 2006, assuming circumstances producing the maximum wind-up liabilities on the valuation date, is determined as follows:

Wind-Up Position (\$000)		
	01.07.06	01.07.03
Market value of assets	\$912,846	\$725,545
Termination expenses	(\$950)	(\$885)
Wind-up assets	\$911,896	\$724,660
Present value of accrued benefits for:		
▪ active members	\$555,520	\$469,029
▪ pensioners and survivors	\$408,665	\$343,227
▪ deferred pensioners	\$21,687	\$21,542
▪ additional voluntary contributions	\$36	\$76
Total wind-up liability	\$985,908	\$833,874
Wind-up excess (deficiency)	(\$74,012)	(\$109,214)

### 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.

Specifically, actuarial liabilities would exceed the market value of Plan assets by \$74,012,000. This calculation includes a provision for termination expenses that might be payable from the pension fund as well as post-retirement indexing benefits as provided under the terms of the Plan.

### **Pension Benefit Guarantee Fund (PBGF) Assessment (Ontario)**

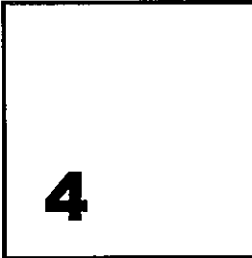
The PBGF assessment is calculated as follows:

\$1 for each Ontario member	\$5,522
PLUS	
0.5% of PBGF assessment base up to 10% of PBGF liabilities	\$145,510
PLUS	
1.0% of PBGF assessment base up to between 10% and 20% of PBGF liabilities	\$0
PLUS	
1.5% of PBGF assessment base over 20% of PBGF liabilities	\$0
PLUS	
2.0% of special PBGF assessment base	\$0
<b>PBGF assessment (taking into account the limit per member of \$100)</b>	<b>\$151,032</b>

The PBGF assessment base and liabilities are derived as follows:

#### **PBGF Assessment Base and PBGF Liabilities**

PBGF liabilities	\$941,948,000	(a)
Total solvency liabilities	\$941,948,000	(b)
Ontario asset ratio	100%	(c) = (a) ÷ (b)
Solvency assets	\$912,846,000	(d)
Ontario portion of the fund	\$912,846,000	(e) = (c) x (d)
<b>PBGF assessment base</b>	<b>\$29,102,000</b>	<b>(f) = (a) - (e)</b>



## Funding Requirements

### Current Service Cost

The estimated value of the benefits that will accrue on behalf of the active members during 2006/2007 through 2008/2009, is summarized below:

#### Employer's Current Service Cost (\$000)

	2006/2007	2007/2008	2008/2009
Total current service cost	\$38,574	\$40,599	\$42,731
Estimated members' required contributions*	(\$10,884)	(\$13,148)	(\$14,349)
Estimated employer's current service cost	\$27,690	\$27,451	\$28,382
Employer's current service cost expressed as a percentage of members' required contributions	254%	209%	198%
Employer's current service cost expressed as a percentage of pensionable earnings	11.6%	10.9%	10.7%
Expected pensionable earnings	\$238,538	\$251,061	\$264,242

\* Member's contribution rates for certain groups increasing through to July 1, 2008

The previous valuation determined the total current service cost for 2003/2004 to be \$29,810,000 with estimated employee contributions of \$7,308,000. The resulting employer's current service cost was \$22,502,000 or 308% of member's required contributions.

An analysis of the changes in the employer's current service cost follows:

### Changes in Employer's Current Service Cost

Employer's current service cost as at 01.07.03	308%
Demographic changes	(10%)
Plan amendments	(68%)
Changes in assumptions	24%
Employer's current service cost as at 01.07.06	254%

## Special Payments

### Going-Concern Basis

No going-concern unfunded liability or special payments existed in the previous valuation. In accordance with the *Pension Benefits Act of Ontario*, the going-concern unfunded liability of \$79,059,000 must be amortized over a period not exceeding 15 years. As such, special payments must be established at \$680,632 per month until June 30, 2021 to amortize this going-concern unfunded liability.

### Solvency Basis

No solvency special payments are required.

### Total Special Payments

The following minimum monthly special payments must be made to the Plan to eliminate any going-concern unfunded liability as at July 1, 2006, within the periods prescribed by the *Pension Benefits Act of Ontario*.

### Minimum Monthly Special Payments

Type of Deficit	Effective Date	Special Payment	Last Payment
Unfunded Liability	July 1, 2006	\$680,632	June 30, 2021



## Employer Contributions

There is a funding shortfall of \$79,059,000 and no special payments are required for solvency purposes as at July 1, 2006. As such, we recommend that McMaster University make monthly contributions to the Plan from July 1, 2006 to July 1, 2009 as follows.

## Minimum Funding Requirements

The minimum monthly required contributions for the period from July 1, 2006 to July 1, 2009 are as follows:

### Monthly Employer Contributions

For current service:

July 1, 2006 – June 30, 2007: 254% of members' required contributions

July 1, 2007 – June 30, 2008: 209% of members' required contributions

July 1, 2008 – June 30, 2009: 198% of members' required contributions

PLUS

Minimum special payments for unfunded liability: \$680,632

On the basis of the members' estimated required contributions, we have estimated the minimum total employer contribution for the period from July 1, 2006 to July 1, 2009 to be as follows:

### Estimated Minimum Employer's Contributions Until July 1, 2009 (\$000)

Year Ending	Current Service Cost	Minimum Special Payments	Minimum Employer's Contribution
June 30, 2007	\$27,690	\$8,168	\$35,858
June 30, 2008	\$27,451	\$8,168	\$35,619
June 30, 2009	\$28,382	\$8,168	\$36,550

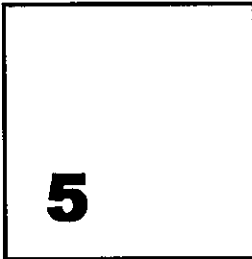
Contributions for current service must be made within 30 days following the month to which they apply. Special payments to eliminate an unfunded liability or solvency deficiency must be made in the month to which they apply.

The minimum contribution requirements based on this report exceed the minimum contribution requirements recommended in the previous valuation report. Upon filing this report, McMaster University must contribute the excess, if any, of the minimum

contribution recommended in this report over contributions actually made in respect of the period following July 1, 2006. This contribution, along with an allowance for interest, is due no later than 60 days following the date this report is filed.

### **Maximum Eligible Contributions**

The maximum eligible employer contribution is equal to the McMaster University current service cost plus the greater of the going-concern deficit and the wind-up deficiency. We have estimated the maximum eligible annual contribution for 2006/2007 to be \$106,749,000 as at July 1, 2006.



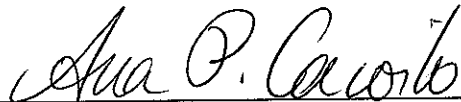
## **Actuarial Opinion**

**With respect to the Actuarial Valuation as at July 1, 2006  
of the The Contributory Pension Plan for Salaried Employees of McMaster  
University Including McMaster Divinity College 2000  
FSCO and Canada Revenue Agency Registration 1079920**

Based on the results of this valuation, we hereby certify that, as at July 1, 2006,

- The employer's current service cost for 2006/2007, 2007/2008 and 2008/2009 should be calculated as 254%, 209% and 198% respectively of members' required contributions.
- The employer's current service cost for 2006/2007 is estimated to be \$27,690,000.
- The Plan would be fully funded on a going-concern basis if its assets were augmented by \$79,059,000. In order to comply with the provisions of the *Pension Benefits Act of Ontario*, the unfunded liability must be liquidated by monthly special payments of \$680,632 until June 30, 2021.
- The Plan has a solvency excess of \$6,113,000 as at July 1, 2006. No special payments are required for solvency purposes.
- The solvency liabilities used to determine the solvency status of the Plan exclude the value of post-retirement indexing benefits provided under the Plan. The value of these excluded liabilities is \$43,960,000 at July 1, 2006.

- The Pension Benefits Guarantee Fund annual assessment under Section 37 of the Regulations to the *Pension Benefits Act of Ontario* for the Plan Year ending June 30, 2006 is \$163,115 (including 8% RST) payable no later than March 31, 2007. The PBGF assessment base is \$29,102,000. The PBGF liabilities are \$941,948,000.
- The transfer ratio of the Plan is 0.92. The Prior Year Credit Balance on July 1, 2006 is \$0. The ratio of solvency assets to solvency liabilities is 0.97.
- 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 July 1, 2006 on going-concern and solvency bases, and determining the minimum funding requirements, and
  - the methods employed in the valuation are appropriate for the purposes of determining the funded status of the Plan as at July 1, 2006 on going-concern and solvency bases, and determining the minimum funding requirements.
- 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.



**Ana P. Caçoiló**  
Fellow of the Society of Actuaries  
Fellow of the Canadian Institute of  
Actuaries



**John M. Higgins**  
Fellow of the Society of Actuaries  
Fellow of the Canadian Institute of  
Actuaries

**FEB 23 2007**

Date

**FEB 23 2007**

Date

**Appendix A**

**Plan Assets**

Starting November 1, 2002, the Plan assets have been physically separated between this Plan and the Original Plan. The funds for both plans are held in a Master Trust with a single combined investment approach for the combined funds.

**Sources of Plan Asset Data**

The pension fund is held in trust by CIBC Mellon and is invested in accordance with the investment policy by a number of investment managers.

We have relied upon the financial statements prepared by CIBC Mellon (with supporting information for in-transit contributions and payments taken from the auditors' reports prepared by KPMG) for the period from July 1, 2003 to July 1, 2006.

## Reconciliation of Plan Assets

The pension fund transactions for the period from July 1, 2003 to July 1, 2006 are summarized as follows:

### Reconciliation of Plan Assets (Market Value - \$000)

	2003/2004	2004/2005	2005/2006
As at July 1	\$720,308	\$798,251	\$872,159
PLUS			
Members' contributions	\$6,015	\$7,149	\$8,552
University's contributions	\$3,340	\$6,479	\$18,454
Transfer In	\$656	\$14,870 <sup>2</sup>	\$741
Investment income and net capital gains (losses)	\$107,454	\$81,587	\$53,794
	\$117,465	\$110,085	\$81,541
LESS			
Transfer Out	\$855	\$0	\$0
Pensions paid	\$29,546	\$31,053	\$32,766
Lump-sum refunds	\$6,896	\$2,756	\$8,104
Administration fees	\$2,225	\$2,368	\$2,407
	\$39,522	\$36,177	\$43,277
As at June 30	\$798,251	\$872,159	\$910,423

This asset value is adjusted to reflect in-transit contributions of \$3,050,000 and in-transit benefit payments and fees payable of \$627,000. The resulting market value is \$912,846,000.

We have tested the pensions paid, the lump-sum refunds and the contributions for consistency with the membership data for the Plan members who have received benefits or made contributions. The results of these tests were satisfactory.

<sup>2</sup> Including transfer of \$14,075,000 from the Contributory Pension Plan for Salaried Employees of McMaster University including McMaster Divinity College (the "Original Plan").

## Investment Policy

The Plan administrator has adopted a statement of investment policy and objectives. This policy is intended to provide guidelines for the managers as to the level of risk which is commensurate with the Plan's investment objectives. A significant component of this investment policy is the asset mix.

The policy target asset mix, and the actual asset mix as at July 1, 2006, are provided for information purposes:

### Distribution of the Market Value of the Fund by Asset Class

	<b>Actual Asset Mix As at 01.07.06</b>	<b>Investment Policy Target Mix</b>
Canadian Equities	14.4%	13.0%
U.S. Equities	24.6%	26.0%
Non-North American Equities	26.3%	26.0%
Bonds	33.6%	35.0%
Short-term	1.1%	0.0%
	<b>100.0%</b>	<b>100.0%</b>

## History of Fund Yields

The following table summarizes the yields on the invested Total Fund for the last 20 years:

Year	Yield Based on Market Value Including Investment Income and Realized and Unrealized Gains or Losses
	%
86-87	10.45
87-88	1.28
88-89	19.31
89-90	0.23
90-91	8.22
91-92	10.51
92-93	13.67
93-94	2.75
94-95	16.09
95-96	13.67
96-97	21.53
97-98	15.38
98-99	4.91
99-00	9.32
00-01	2.37
01-02	(1.25)
02-03	(2.84)
03-04	14.89
04-05	9.96
05-06	5.94



**Appendix B**

## **Actuarial Methods and Assumptions**

### **Actuarial Valuations Methods — Going-Concern Basis**

#### **Valuation of Assets**

For this valuation, we have continued to use a market-related valuation method to determine the actuarial value of Plan assets. This method smoothes each year's experience gains and losses (difference between actual and expected investment income) evenly over 5 years.

The asset values produced by this method are related to the market value of the assets, with the advantage that, over time, the market-related asset values will tend to be more stable than market values. To the extent that more capital gains than losses will arise over the long term, the actuarial value will tend to be lower than the market value.

The Plan assets have only been physically separated between this Plan and the Original Plan since November 1, 2002. We have therefore continued to determine the actuarial value of assets for the combined assets of the two plans and allocated this total to each plan in proportion to the market value of assets in each plan at the valuation date.

The actuarial value of the assets for this Plan, determined as at July 1, 2006 under the adjusted market value method, is \$891,457,000.

This value was derived as follows:

The actuarial value of the combined assets of the Plan and the Original Plan was determined as follows (in \$millions):

	2002/03	2003/04	2004/05	2005/06
Market Value at July 1st	\$919	\$724	\$809	\$873
Payments into Plan	\$12	\$17	\$31	\$28
Payments out of Plan	(\$182)	(\$37)	(\$48)	(\$41)
Expected return (6.5%)	\$54	\$46	\$52	\$56
Investment experience gains/(losses)	(\$79)	\$59	\$29	(\$5)
Market Value at June 30th	\$724	\$809	\$873	\$911

1. Market Value of the Total Fund at July 1, 2006 \$911

*LESS*

Investment experience gains or losses

2002: (\$5)	x	0.8	(\$4)
2001: \$ 29	x	0.6	\$17
2000: \$ 59	x	0.4	\$24
1999: (\$79)	x	0.2	(\$16)
			<hr/>

2. Total Adjustment \$21

3. Actuarial Value of the Total Fund at July 1, 2006 \$890  
(1. minus 2.)

The market value of assets in the Plan at June 30, 2006 represents 99.84% of the assets of the two plans combined. Multiplying this percentage by the actuarial value of the combined assets of the two plans produces an actuarial asset value of \$889,034,000 at July 1, 2006.

In addition, there were in-transit contributions of \$3,050,000 and in-transit benefit payments and fees payable of \$627,000 as at July 1, 2006. Thus, the actuarial value of assets as at July 1, 2006 adjusted for in-transit items is \$891,457,000.

The average return on the actuarial value of assets since the last valuation at July 1, 2003 was 3.9% per year. This rate is less than the assumed investment return of 6.5% by 2.6% per year.

## **Valuation of Actuarial Liabilities**

Over time, the real cost to the employer 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*.

The *funding excess or unfunded liability*, as the case may be, is the difference between the actuarial value of assets and the actuarial liability. An unfunded liability will be amortized over no more than 15 years through special payments as required under the *Pension Benefits Act of Ontario*. A funding excess may, from an actuarial standpoint, be applied immediately to reduce required employer current service contributions unless precluded by the terms of the plan or by legislation.

This actuarial funding method produces a reasonable matching of contributions with accruing benefits. Because benefits are recognized as they accrue, the actuarial funding method aims at keeping the plan fully funded at all times. This promotes benefit security, once any unfunded liabilities and solvency deficiencies have been funded.

## **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 employer's current service cost is the total current service cost reduced by the members' required contributions.

The employer's current service cost has been expressed as a percentage of the members' required contributions 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' required contributions, can be expected to remain stable as long as the average age of the group remains constant.

## Employer's Contribution

Accordingly, the employer's contributions for this purpose are determined as follows:

### Employer's Contributions

With a funding excess	With an unfunded liability
Current service cost	Current service cost
MINUS	PLUS
Any funding excess applied to cover the employer's current service cost	Payments to amortize any unfunded liability

## 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 modified most of the going-concern valuation assumptions as compared to those used 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 will average 6.50% per year over the long term. We have based this assumption on an expected long-term return on the pension fund less an allowance for investment and administrative expenses of 0.3% per year and less a margin for adverse deviations.

The expected long-term return on the pension fund was determined for the target asset mix specified in the Plan's investment policy consistent with market conditions applicable on the valuation date.

### Expenses

No explicit allowance has been made to cover the anticipated expenses of administration of the Plan. The assumed rate of Investment Return used to value the Plan is net of all expenses charged to the pension fund.

### Increases in Pensionable Earnings

The benefits ultimately paid will depend on each member's final average earnings. To calculate the pension benefits payable upon retirement, death or termination of employment, we have taken the July 1, 2006 earnings and assumed that such pensionable earnings will increase from July 1, 2007 onward at 5.25% per year.

In our previous valuation, we had assumed that earnings would increase annually at a rate of 5.5%.

### 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 4.25% per year from its 2006 level of \$42,100.

In our previous valuation, we had assumed that the YMPE would increase annually at a rate of 4.5%.

### Increases in the Maximum Pension Permitted under the Income Tax Act

The *Income Tax Act* stipulates that the maximum pension that can be provided under a registered pension plan will be increased, starting in 2010, in accordance with general increases in the average wage.

For this valuation, we have assumed that the maximum pension payable under the Plan will increase as specified in the *Income Tax Act* from \$2,111.11 in 2006 to \$2,222.22 in 2007, \$2,333.33 in 2008 and \$2,444.44 in 2009, and will increase starting in 2010 at the rate of 4.25% per year.

In our previous valuation, we had assumed that the maximum pension limit would be \$1,833.33 in 2004, \$2,000.00 in 2005, increasing starting in 2006 at the rate of 4.5%.

### Indexation of Pensions in Payment

Pensions in payment are increased each year according to the indexing provisions of the Plan. The increase in pensions is equal to the excess of the 5-year average actual fund rate of return over 4.5%, subject to a cap of the change in CPI for the year. Since our valuation is based on an assumed investment return of 6.5% per year, the assumed post-retirement pension indexing in future is 2.0% per annum. The value of post-retirement indexing is included in the liabilities for all members.

### Interest Credited on Employee-Required Contributions

For this valuation, we have assumed that the interest rate to be credited on employee required contributions will represent, on average, 6.50% per annum, over the long term.

### Demographic Assumptions

#### Retirement Age

We have assumed that 25% of those eligible to retire with an unreduced pension under the Plan terms would do so when first eligible, with the remainder of the members assumed to retire at 65.

In our previous valuation we had assumed that 13% of those eligible to retire with an unreduced pension would do so when first eligible.

#### Termination of Employment

We have made an allowance for projected benefits payable on the termination of employment before retirement for reasons other than death.

Medium termination rates obtained by the Ontario Committee on Portable Pensions were used without graduation, but restricted to age 39:

#### Termination Rates

Age	Probability of Terminating Within 1 Year
20	36.0%
25	20.0%
30	11.2%
35	6.3%
40 and over	0.0%

#### Mortality

The actuarial value of the pension depends on the life expectancy of the member. We have assumed mortality rates, both before and after retirement, in accordance with the Uninsured Pensioners Mortality Table (UP94) with mortality projected to 2015. According to this table, the life expectancy at age 65 is 19.0 years for males and 21.6 years for females.

In our previous valuation we had assumed mortality rates before and after retirement in accordance with the Group Annuity Mortality (GAM) Table for 1983. According to this table, the life expectancy at age 65 is 16.7 years for males and 21.3 years for females.

### Family Composition

Benefits in case of death, before and after retirement, depend on the Plan member's marital status.

For this valuation, we have assumed that 85% of Plan members will have an eligible spouse on the earlier of death or retirement, and that the male partner will be three years older than the female partner.

### Valuation of Termination Benefits

This valuation has assumed that for purposes of calculating the actuarial liability, the benefit payable upon termination will equal twice the member's contributions with interest.

## Actuarial Valuation Methods and Assumptions — Solvency and Impact of Plan Wind-Up

We have used the market value of the Plan's assets in our valuation of the Plan for solvency purposes.

To determine the solvency actuarial liability, we have valued those benefits that would have been paid had the Plan been wound up on the valuation date, including benefits that would be immediately payable if the employer's business were discontinued on July 1, 2006, with all members fully vested in their accrued benefits. We have excluded the value of post-retirement indexing benefits provided under the Plan from the solvency liabilities.

We have assumed that members who are eligible for an immediate unreduced pension at July 1, 2003 will have their pension commence immediately on an unreduced basis. Members who satisfy the "Rule of 55" are assumed to retire at the age at which they would attain eligibility for an unreduced pension, assuming a grow-in of age and service. Those "Rule of 55" members who will not meet the unreduced pension eligibility requirement before age 65 are assumed to have their pension commence at age 62 or their current age if older. Pensions, in this case, are reduced by 6% per year for each year the pension is assumed to commence prior to age 65. Retirement at age 62 is assumed to create the largest potential liability for an individual who cannot attain the eligibility criteria for an unreduced pension prior to age 65. Members who do not have 55 points at the valuation date are assumed to retire at age 65. For each individual Plan member, two times accumulated employee contributions with interest is held as a minimum actuarial liability.

Benefits are assumed to be settled through lump sum transfer for all active members below age 55 at the valuation date. The value of the benefits accrued on July 1, 2006 for such members is based on the assumptions described in the Canadian Institute of Actuaries – Standard of Practice for Determining Pension Commuted Values applicable for July 1, 2006.

Benefits for all active members age 55 or older, all deferred vested and retired members and beneficiaries are assumed to be settled through the purchase of annuities. The value of the benefits accrued on July 1, 2006 for such members is based on an estimate of the cost of settlement through purchase of annuities, based on the assumption that the market pricing to purchase a group annuity of this size would be on the same basis as the smaller group annuities that are available in the market.



Assumptions are as follows:

### Actuarial Assumptions

Mortality rates:	UP94 projected to 2015 (blending 50% / 50% male/female rates for benefits to be settled through lump sum transfer)
Interest rates for benefits to be settled through lump sum transfer:	Wind-up: 5.00% per year Solvency: 5.00% per year
Interest rates for benefits to be settled through annuity purchase:	Wind-up: 5.00% per year Solvency: 5.00% per year
Final average earnings:	Based on actual pensionable earnings over the averaging period.
Maximum pension limit:	\$2,111.11 per year of service
Family composition:	Same as for going-concern valuation
Termination expenses:	\$950,000
Annual post-retirement pension increases	Wind-up: 0.50% per year Solvency: 0.00% per year (excluded)

In a solvency 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 termination of employment.

The provision for termination expenses payable from the Plan's assets is in respect of actuarial, administration and legal expenses that would be incurred in terminating the Plan. Because the settlement of benefits on wind-up is assumed to occur on the valuation date, the provision for termination expenses does not include custodial, investment management, auditing and consulting expenses that would be incurred between the wind-up date and the settlement date. In determining the estimated termination expenses, we have assumed that the Plan sponsor is solvent.



**Appendix C**

## **Membership Data**

### **Analysis of Membership Data**

The actuarial valuation is based on membership data as at July 1, 2006, provided by McMaster University.

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. Contributions, lump sum payments and pensions to retirees were compared with corresponding amounts reported in financial statements. The results of these tests were satisfactory.

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

### Membership Data

	July 1, 2006			July 1, 2003		
	Males	Females	Totals	Males	Females	Totals
<b>Active Members</b>						
<i>Full-time</i>						
Number	1,229	1,967	3,196	1,144	1,765	2,909
Total salary	\$113,592,102	\$114,231,369	\$227,823,471	\$96,817,607	\$91,494,325	\$188,311,931
Average salary	\$92,426	\$58,074	\$71,284	\$84,631	\$51,838	\$64,734
Average pensionable service	12.6	10.7	11.4	12.8	10.4	11.3
Average age	47.4	45.3	46.0	47.1	44.5	45.5
Total employee contributions with interest*	\$105,198,042	\$71,407,354	\$176,605,396	\$112,216,143	\$67,502,281	\$179,718,425
<i>Part-time</i>						
Number	27	340	367	28	325	353
Total salary	\$1,440,981	\$16,000,053	\$17,441,034	\$1,522,283	\$14,092,536	\$15,614,818
Average salary	\$53,370	\$47,059	\$47,523	\$54,367	\$43,362	\$44,235
Average pensionable service	8.0	6.7	6.8	11.9	7.2	7.6
Average age	44.0	45.6	45.4	47.7	45.2	45.4
Total employee contributions with interest*	\$854,602	\$5,586,753	\$6,441,355	\$1,900,724	\$7,097,768	\$8,998,493
<b>Pensioners</b>						
Number	713	644	1,357	616	581	1,197
Total annual basic pension	\$24,175,040	\$9,549,564	\$33,724,603	\$20,975,284	\$7,642,655	\$28,617,939
Average annual basic pension	\$33,906	\$14,829	\$24,852	\$34,051	\$13,154	\$23,908
Average age	73.4	72.4	72.9	71.8	73.2	72.5
<b>Deferred Pensioners **</b>						
Number	264	338	602	32	39	71
Total annual pension	\$949,520	\$1,004,494	\$1,954,014	\$195,308	\$138,612	\$333,920
Average annual pension	3,610	2,972	3,251	\$6,103	\$3,554	\$4,703
Average age	45.9	44.5	45.1	49.6	45.4	47.3

\* Balances at June 30, 2006 using 4.69% credited for 2005/2006 as estimate. Actual rate applied is to be 5.39%

\*\* Deferred Vested at July 1, 2003 does not include Inactive – Status Undecided members.

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

### Reconciliation of Membership

	<b>Actives</b>	<b>Deferred Vested</b>	<b>Pensioners and Beneficiaries</b>	<b>Total</b>
<b>Total at 01.07.03</b>	<b>3,262</b>	<b>425</b>	<b>1,197</b>	<b>4,884</b>
New entrants	908			908
Rehire	9	(9)		0
Terminations:				
▪ status undecided	(227)	227		0
▪ transfers/refunds	(172)	(49)		(221)
▪ deferred pensions	(12)	12		
Deaths	(4)	(1)	(60)	(65)
Retirements	(208)	(10)	218	0
Data Corrections	17	7	2	16
	(10)			
<b>Total at 01.07.06</b>	<b>3,563</b>	<b>602</b>	<b>1,357</b>	<b>5,522</b>

The distribution of the active members by age and pensionable service as at July 1, 2006,  
is summarized as follows:

**Distribution of Active Members by  
Age Group and Pensionable Service as at 01.07.06**

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
20-24	23 38,338									23 38,338
25-29	170 43,563	8 41,722								178 43,481
30-34	218 53,543	87 50,877	3 45,083							308 52,708
35-39	243 60,216	153 65,500	47 52,188	17 50,622						460 60,799
40-44	248 60,558	173 71,823	61 70,444	93 53,607	16 47,878	1 **				592 63,401
45-49	162 58,753	120 70,293	79 71,866	118 81,802	85 64,642	29 55,426	4 54,553			597 68,012
50-54	106 54,316	93 64,051	68 71,235	132 96,045	88 95,679	66 63,798	26 57,466	1 **		580 74,857
55-59	65 68,813	54 58,394	58 58,854	117 79,599	86 101,419	62 113,585	41 67,677	22 63,743		505 79,790
60-64	27 80,355	28 72,047	17 51,890	64 79,402	40 115,424	50 115,123	56 109,857	19 95,168		301 94,631
65-69	2 **		4 68,622	3 75,794	1 **	2 **	3 69,393	3 128,436	1 **	19 111,052
<b>TOTAL</b>	1,264 56,671	716 65,320	337 65,213	544 78,674	316 89,079	210 90,464	130 83,440	45 81,160	1 **	3,563 68,837

For each age cell, the second row indicates the average annual earnings.

\*\* For individual cells with information on two members or less, the average earnings are not disclosed for confidentiality reasons.

The distribution of the inactive members by age as at July 1, 2006, is summarized as follows:

**Distribution of Inactive Members  
By Age Group as at 01.07.06**

Age	Deferred Pensioners		Pensioners and Survivors	
	Number	Average Pension	Number	Average Pension
25 - 29	45	\$1,250		
30 - 34	54	\$1,286		
35 - 39	94	\$1,862		
40 - 44	105	\$2,703		
45 - 49	103	\$3,806		
50 - 54	99	\$4,357	6	\$21,284
55 - 59	65	\$5,768	70	\$25,363
60 - 64	36	\$4,896	161	\$24,963
65 - 69			304	\$30,985
70 - 74			251	\$26,669
75 - 79			565	\$20,689
80 - 84	1	**		
85 - 89				
90 - 94				
95 - 99				
100 +				
<b>Total</b>	<b>602</b>	<b>\$3,251</b>	<b>1,357</b>	<b>\$24,852</b>

\*\* For individual cells with information on two members or less, the average pensions are not disclosed for confidentiality reasons.

## Appendix D

### **Summary of Plan Provisions**

#### **Introduction**

The following is a summary of the Plan's main provisions in effect on July 1, 2006. It is not intended as a complete description of the Plan.

Since the last valuation at July 1, 2003 the Plan has been amended in respect of specific membership groups to increase member contribution rates and to increase the number of "points" required to be eligible for an unreduced early retirement pension. Specific changes are described below.

Effective December 12, 2006 the Plan is amended to remove the requirement for University consent for a member to postpone his retirement and the receipt of his pension.

#### **Eligibility for Membership**

Full-time employees may elect to join the Plan immediately but are required to join on the July 1st following completion of six months' employment. Part-time employees who either earn at least 35% of the YMPE or work for at least seven hundred hours in each of the two preceding consecutive calendar years for the University are eligible and are required to join under the same criteria as above.

All members of the Plan (active and inactive) as of July 1, 2000 and new employees who joined the Original Plan between July 1, 2000 to December 31, 2000 have been transferred to this Plan if they voted in favour of the Surplus Sharing Agreement. In addition, members who joined the Original Plan between January 1, 2001 and January 14, 2003 have been transferred to this Plan following the approval of the asset transfer by the Financial Services Commission of Ontario.

## Retirement

Normal retirement is on the 1st of July next following the member's 65th birthday. However, a member may normally elect to retire immediately on attaining age 65.

A member whose age plus pensionable service equals or exceeds 80 points may retire early and receive an unreduced pension and a bridge benefit. Effective July 1, 2006 the number of points required to retire early and receive an unreduced pension and bridge benefit is amended for Faculty Members, TMG Members and Librarians. For these members the number of points required is as follows:

<b>Retirement Date for Faculty Members, TMG Members, and Librarians</b>	<b>Points Required</b>
July 1, 2006 to December 31, 2011	80
January 1, 2012 to December 31, 2012	81
January 1, 2013 to December 31, 2013	82
January 1, 2014 to December 31, 2014	83
January 1, 2015 to December 31, 2015	84
January 1, 2016 forward	85

A member may retire early with a reduced pension at any time during the 10-year period preceding his normal retirement date. The reduction will be 0.5% for each month by which actual retirement precedes age 65.

A member may postpone his actual retirement and commencement of pension (with University consent prior to December 12, 2006), but in any event his pension shall commence no later than the 1st of December of the year of attainment of age 69. He will continue to make contributions and his benefits under the Plan will continue to accrue until such postponed retirement date.



## Contributions

Each member is required to contribute 3.5% of his regular annual earnings up to the Year's Maximum Pensionable Earnings under the Canada Pension Plan and 5% of his regular annual earnings in excess of the Year's Maximum Pensionable Earnings. Effective at the dates and for the periods shown in the table below member required contribution rates are amended for specific member groups as follows:

<b>Contribution Rate below/above YMPE</b>	<b>Faculty Members and TMG Members</b>	<b>Librarians</b>	<b>CAW Local 555 Members</b>
4.25% / 5.75%	July 1, 2006 to June 30, 2007	August 1, 2006 to June 30, 2007	August 1, 2006 to June 15, 2007
5.0% / 6.5%	July 1, 2007 forward	July 1, 2007 forward	June 16, 2007 to June 15, 2008
5.5% / 7.0%	n/a	n/a	June 16, 2008 forward

Effective July 1, 1997, member required contributions will be limited to the lesser of:  
(a) the maximum amount permitted under the Income Tax Act in that calendar year; and  
(b) 250% of the maximum annual pension benefit payable under the Plan.

Effective July 1, 2006, member required contributions will be limited to the lesser of:  
(a) the maximum amount permitted under the Income Tax Act in that year; and  
(b) the contribution arising when the applicable employee contribution rate is applied to the Maximum Annual Salary under the Plan.

The Maximum Annual Salary is the salary rate that produces an annual pension amount equal to the maximum pension limit under the *Income Tax Act* for that year. The Maximum Annual Salary for 2006 is \$118,186.

## Pension Benefits

The amount of annual pension payable to a member at his unreduced retirement age will be:

- (a) 1.4% of Best Average Salary up to the Average Year's Maximum Pensionable Earnings times years of pensionable service, plus
- (b) 2.0% of Best Average Salary in excess of the Average Year's Maximum Pensionable Earnings times years of pensionable service.

Best Average Salary means the annualized average of the 48 highest months of earnings while a Plan participant. Average Year's Maximum Pensionable Earnings means the pro-rated average Yearly Maximum Pensionable Earnings, in the same 48 months as are used to calculate Best Average Salary.

Pensions in payment will be increased from January 1st each year on a pro-rated basis (using the number of months the pensioner has been retired in the twelve months) by the excess over 4.5% of the average annual rate of return earned on the assets of the Plan over the previous five Plan Years, subject to a maximum of that year's rate of increase in the Consumer Price Index. Effective July 1, 1997, if there is any year where the percentage calculated under the excess interest formula exceeds the rate of increase in the Consumer Price Index, the excess will be used to provide a supplementary increase to the pensions in pay for which the annual pension increase in any of the three previous years was based on the excess interest formula, provided that the supplementary increase will be limited to 100% of CPI increases in each of the three preceding years.

In addition, members on LTD will have their salary adjusted each July 1st by the percentage increase applied to pensions in payment. This increase will be applied from the later of July 1, 1990 or the July 1st following disability.

### Bridge Benefits

Faculty members who first attain 80 points between July 1, 1996 and December 31, 1996 and who elect to retire on December 31, 1996, will receive a bridge benefit equal to the greater of \$7,500 or \$249.29 per year of credited service. The bridge benefit is payable from the member's early retirement date and ceases at age 65 or death, if earlier.

Faculty members who first attain 80 points prior to July 1, 1996 and who elect to retire between July 1, 1996 and June 30, 1997 or who first attain 80 points between July 1, 1996 and December 31, 1996 and who elect to retire between January 1, 1997 and June 30, 1997, will receive a bridge benefit equal to \$249.29 per year of credited service. The bridge benefit is payable from the member's early retirement date and ceases at age 65 or death if earlier.

Staff members who retire at the request of the University between June 30, 1996 and December 31, 1996 and who have attained 80 points, will receive a bridge benefit equal to \$249.29 per year of credited service. The bridge benefit is payable from the member's early retirement date and ceases at age 65 or death, if earlier.

Effective July 1, 1997, members who retire early and have attained 80 points will receive a bridge benefit equal to \$19.00 per month per year of credited service accrued to June 30, 1996 to a maximum of 20 years of service. The bridge benefit is payable from the later of the member's early retirement date and age 60 and ceases payment on attainment of age 65 or death, if earlier.

### Minimum Benefits

If the member's total Required Contributions plus net interest are greater than 50% of the commuted value of a member's retirement and bridge pensions, the excess amount will be refunded to the member as a lump sum payment. In addition, the member will receive a refund of his voluntary contributions with interest, if any.

### Maximum Benefits

The total annual pension payable from the Plan upon retirement, death or termination of employment cannot exceed the member's pensionable service multiplied by the lesser of:

- a) \$2,111.11 or such other maximum prescribed for this purpose under the *Income Tax Act*; and
- b) 2.0% of the average of the best 3 consecutive years of regular annual salary.

### Survivor Benefits

#### **Death Before Retirement**

On the death of a member prior to retirement, his beneficiary or estate is entitled to receive a death benefit equal to his required contributions accrued to December 31, 1986 accumulated with net interest on the fund, and his beneficiary or estate shall receive the commuted value of the member's pension accrued after December 31, 1986, plus any required contributions made after December 31, 1986, accumulated with net interest on the fund, in excess of 50% of the commuted value.

In addition, his beneficiary or estate will receive a refund of his voluntary contributions with interest, if any.

#### **Death After Retirement**

The benefit is payable for life, but guaranteed for seven years in any event. In the case of a member with a spouse, 50% of the benefit is continued to the spouse for life and at least the remainder of the guaranteed seven years' payments will be made. There is no required adjustment in respect of this surviving spouse's benefit.

Prior to July 1, 1997, the normal form of benefit was as described above with a five-year guarantee in place of the seven-year guarantee.

Alternative forms of pension are available in actuarial equivalent amounts and for members who have a spouse and who retire after December 31, 1987, the automatic form of pension will be an actuarially reduced benefit which continues 60% of the pension to a surviving spouse for life.

## Termination Benefits

If a member terminates employment prior to retirement, he may elect to receive one of the following:

- a) A refund of his Required Contributions, with Net Interest on the Fund.
- b) A transfer of the greater of twice his Required Contributions plus Net Interest and the commuted value of his deferred pension to another locked-in registered pension vehicle.
- c) A deferred pension, payable at Normal Retirement Date, equal to the pension earned up to the date of termination.

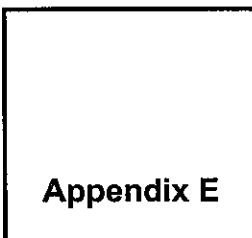
A member who has met the minimum locking-in criteria under the *Pension Benefits Act of Ontario*, determined separately for service and benefits before and after January 1, 1987, may elect only (b) or (c). Such member may, however, receive a return of Required Contributions with Net Interest prior to January 1, 1965 subject to a 5% withdrawal charge.

In addition, a member is entitled to a refund of the excess of his Required Contributions plus Net Interest over 50% of the commuted value of the deferred pension described in (c) above. The excess is measured separately for required contributions with interest and pension benefits accrued before and after January 1, 1987.

If a member who is hired on or after the dates shown in the table below terminates employment before retirement and before completing two years of membership, he is only entitled to the benefit described in (a) above.

<b>Hire Date</b>	<b>Faculty and TMG Members</b>	<b>Librarians and CAW Local 555 Members</b>
On or after	July 1, 2006	June 16, 2006

In addition, a member is entitled to a refund of his voluntary contributions with Net Interest, if any.



### Employer Certification

With respect to the report on the actuarial valuation of the *The Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000*, as at July 1, 2006, 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 July 1, 2006, 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 July 1, 2006; and
- all events subsequent to July 1, 2006 that may have an impact on the results of the valuation have been communicated to the actuary.

*Marm 12/07*

\_\_\_\_\_ Date

\_\_\_\_\_ Signed

Lilian Scime  
Assistant Vice-President (Administration)

\_\_\_\_\_ Name

