June 2008

# 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, 2007

# **MERCER**



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# **Summary of Results (\$000)**

Going-Concern Financial Position	01.07.07	01.07.06
Smoothed value of assets	\$968,153	\$891,457
Actuarial liability	\$1,034,356	\$970,516
Funding excess (shortfall)	\$(66,203)	\$(79,059)
Solvency Financial Position	01.07.07	01.07.06
Adjusted solvency assets <sup>1</sup>	\$1,077,098	\$948,061
Adjusted solvency liability	\$1,029,981	\$941,948
Solvency excess (deficiency)	\$47,117	\$6,113
Ratio of solvency assets to solvency liabilities	1.00	0.97
Wind-Up Financial Position	01.07.07	01.07.06
Market value of assets (net of termination expenses)	\$1,045,486	\$911,896
Total wind-up liability	\$1,074,635	\$985,908
Wind-up excess (deficiency)	\$(29,149)	\$(74,012)
Transfer ratio	0.97	0.92

<sup>&</sup>lt;sup>1</sup> Including the present value of the next 5 years' going-concern special payments of \$36,165,000 as at July 1, 2006 and \$31,612,000 as at July 1, 2007. This present value is excluded to calculate the ratio of solvency assets to solvency liabilities.

Funding Requirements (annualized)	2007/2008	2006/2007
Total current service cost	\$40,211	\$38,574
Estimated members' required contributions	\$(12,933)	\$(10,884)
Estimated employer's current service cost	\$27,278	\$27,690
Employer's current service cost as a percentage of members' required contributions	211%	254%
Minimum special payments	\$7,134	\$8,168
Estimated minimum employer contribution for year	\$34,412	\$35,858
Estimated maximum employer contribution for year	\$93,481	\$106,749

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# Introduction

# Report on the Actuarial Valuation as at July 1, 2007

# 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, 2007. 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, 2007 on going-concern and solvency bases, and
- the minimum funding requirements from 2007/2008.

The next actuarial valuation of the Plan will be required as at a date not later than July 1, 2010 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 \$66,203,000 and no special payments are required for solvency purposes at July 1, 2007. As such, the minimum monthly contributions to be remitted to the Plan from July 1, 2007 to July 1, 2010 are as follows:

### **Minimum Monthly Employer Contributions**

#### For current service:

July 1, 2007 - June 30, 2008: 211% of members' required contributions

July 1, 2008 - June 30, 2009: 203% of members' required contributions

July 1, 2009 - June 30, 2010: 206% of members' required contributions

#### **PLUS**

Minimum special payments for unfunded liability: \$594,538

The maximum contributions that McMaster University may make to the Plan in 2007/2008 is \$93,481,000 which is comprised of the McMaster University current service cost plus the greater of the funding shortfall and the wind-up deficiency.

The Plan is not fully funded on a wind-up basis. Even if the sponsor contributes in accordance with the funding requirements described in this valuation report, the assets of the Plan may be less than the liabilities of the Plan upon wind-up since the plan sponsor has elected to exclude the post-retirement indexing benefits that may become payable in the event of wind-up in determining the minimum solvency deficiency payments.

Emerging experience, including the growth of wind-up liabilities compared to the Plan's assets (including future contributions and investment returns), will also affect the wind-up funded position of the Plan.

This valuation reflects the provisions of the Plan as at July 1, 2007. The Plan has been amended since the date of the previous valuation as follows:

- Effective December 12, 2006, the Plan was amended to remove the requirement for University consent for a member to postpone his retirement and his pension. This amendment is not expected to have a material impact on the accrued liabilities or current service cost.
- The University received an interpretation from the Canada Revenue Agency and consequently the Plan was amended effective January 1, 2007 to prospectively remove professional earnings of the Regional Medical Associates (the "RMA") from inclusion in earnings for the purpose of contributions and pension benefits for the clinicians.

 Effective July 1, 2007, the Plan was amended to introduce an increase to the employee contribution rate and changes in the early retirement provisions for members employed by affiliated employers.

These amendments have resulted in a decrease of \$2,682,000 in the actuarial liability and an increase of \$97,000 in the employer current service cost. A summary of the Plan provisions, including a description of the amendments, is provided in Appendix D.

We have used the same going-concern valuation assumptions as those used for the valuation as at July 1, 2006. 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.

This report has been prepared on the assumption that all of the assets in the pension fund are available to meet all of the claims on the pension plan. We are not in a position to assess the impact that the Ontario Court of Appeal's decision in *Aegon Canada Inc.* and *Transamerica Life Canada versus ING Canada Inc.* or similar decisions in other jurisdictions might have on the validity of this assumption.

The University granted a cost-of-living upgrade under the Plan effective January 1, 2008. The experience loss generated will be reflected in the next actuarial valuation report.

After checking with representatives of the University, 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 has been prepared, and our opinions given, in accordance with accepted actuarial practice. It has also been prepared in accordance with the funding and solvency standards set by the *Pension Benefits Act of Ontario*.

The information contained in this report was prepared for Pension Committee for its internal use and for filing with Financial Services Commission of Ontario and with the Canada Revenue Agency, in connection with our actuarial valuation of the Plan. This report is not intended or necessarily suitable for other purposes.

### 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, 2007

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

Respectfully submitted,

Lorra	ine	<b>G</b> ignac	;

Fellow of the Society of Actuaries

Fellow of the Canadian Institute of Actuaries

June 5, 2008

Date

Karen Tang

Fellow of the Society of Actuaries

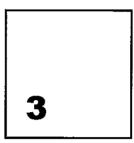
Fellow of the Canadian Institute of Actuaries

June 5, 2008

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, 2007, in comparison with those of the previous valuation as at July 1, 2006, are summarized as follows:

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

	01.07.07	01.07.06
Assets		
Market value of assets (adjusted for in-transit items)	\$1,046,436	\$912,846
Smoothing adjustment	\$(78,283)	\$(21,389)
Smoothed value of assets	\$968,153	\$891,457
Actuarial liability		
Present value of accrued benefits for:		
<ul> <li>active members</li> </ul>	\$583,996	\$541,399
<ul><li>pensioners and survivors</li></ul>	\$423,669	\$408,665
<ul> <li>deferred pensioners</li> </ul>	\$26,652	\$20,416
<ul> <li>additional voluntary contributions</li> </ul>	\$39	\$36
Total liability	\$1,034,356	\$970,516
Funding excess / (shortfall) (A)	\$(66,203)	\$(79,059)
Present value of existing going-concern unfunded liability special payments (B)	\$75,790	\$0
Going-concern unfunded liability created at this valuation date (maximum of 0 and A - B)	\$0	\$79,059

# Reconciliation of Financial Position

The Plan's financial position, a funding shortfall of \$66,203,000 as at July 1, 2007, is reconciled with its previous position, a funding shortfall of \$79,509,000 as at July 1, 2006, as follows:

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

Funding excess / (shortfall) as at 01.07.06	\$(79,059)
Interest on funding excess / (shortfall) at 6.5% per year to 01.07.07	(5,139)
Special payments made in 2007, with interest at 6.5% per year	8,408
Net experience gains (losses) over 2007 *	16,286
Impact of Plan amendments	2,682
Data corrections	(7,545)
Net impact of other elements of gains and losses	(1,836)
Funding excess / (shortfall) as at 01.07.07	\$(66,203)

<sup>\*</sup> 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, 2006:

### Plan Experience

	Assumption	Actual 2007		Impact ain (Loss)
Net investment return	6.5%/year	8.8%		\$17,934
Increases in pensionable earnings	5.25%/year	6.8%	ו	(0.004)
Increases in YMPE	4.25%/year	3.8%	}	(3,861)
Indexation	2.0%/year	0.89%		5,033
Retirements	119	69		(2,847)
Terminations of employment	84	174		2,179
Mortality				
<ul><li>pre-retirement</li></ul>	6 deaths	3 deaths		(820)
post-retirement	48 deaths	41 deaths		(1,332)
Net experience gains (losses)				\$16,286

# 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.

We have not included the value of post-retirement indexing benefits provided under the Plan. The value of these excluded liabilities is \$44,654,000 at July 1, 2007.

# Financial Position on a Solvency Basis

The Plan's solvency position as at July 1, 2007, in comparison with that of the previous valuation as at July 1, 2006, is determined as follows:

# **Solvency Position (\$000)**

	01.07.07	01.07.06
Market value of assets (adjusted for in-transit items)	\$1,046,436	\$912,846
Termination expenses	\$(950)	\$(950)
a. Solvency assets	\$1,045,486	\$911,896
Solvency asset adjustment:		
Averaging method adjustment	\$0	\$0
b. Adjusted solvency assets	\$1,045,486	\$911,896
Present value of special payments for next five years	\$31,612	\$36,165
c. Adjusted solvency assets including the present value of special payments for next five years	\$1,077,098	\$948,061
Actuarial liability		
Present value of accrued benefits for:		
<ul><li>active members</li></ul>	\$594,876	\$528,963
<ul><li>pensioners and survivors</li></ul>	\$407,901	\$391,353
<ul><li>deferred pensioners</li></ul>	\$27,165	\$21,596
<ul> <li>additional voluntary contributions</li> </ul>	\$39	\$36
d. Solvency liabilities	\$1,029,981	\$941,948
Solvency liability averaging method adjustment	\$0	\$0
e. Adjusted solvency liability	\$1,029,981	\$941,948
Solvency excess / (deficiency) created as at valuation date $(c - e)$	\$47,117	\$6,113
f. Value of excluded benefits	\$44,654	\$43,960
g. Solvency liabilities before exclusion of benefits (d + f)	\$1,074,635	\$985,908
Transfer ratio (a ÷ g)	0.97	0.92
Ratio of solvency assets to solvency liabilities (a $\div$ d)	1.00	0.97

### 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, 2007 in comparison with the previous valuation as at July 1, 2006, assuming circumstances producing the maximum wind-up liabilities on the valuation date, is determined as follows:

### Wind-Up Position (\$000)

	01.07.07	01.07.06
Market value of assets	\$1,046,436	\$912,846
Termination expenses	\$(950)	\$(950)
Wind-up assets	\$1,045,486	\$911,896
Present value of accrued benefits for:		
<ul><li>active members</li></ul>	\$623,680	\$555,520
<ul><li>pensioners and survivors</li></ul>	\$423,669	\$408,665
<ul> <li>deferred pensioners</li> </ul>	\$27,247	\$21,687
additional voluntary contributions	\$39	\$36
Total wind-up liability	\$1,074,635	\$985,908
Wind-up excess (deficiency)	\$(29,149)	\$(74,012)

# 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 \$29,149,000. 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	\$5,586
PLUS	
0.5% of PBGF assessment base up to 10% of PBGF liabilities	\$0
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
PBGF assessment (taking into account the limit per member of \$100)	\$5,586

The PBGF assessment base and liabilities are derived as follows:

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

PBGF liabilities	\$1,029,981,000	(a)
Total solvency liabilities	\$1,029,981,000	(b)
Ontario asset ratio	100%	$(c) = (a) \div (b)$
Solvency assets	\$1,046,436,000	(d)
Ontario portion of the fund	\$1,046,436,000	$(e) = (c) \times (d)$
PBGF assessment base	\$0	(f) = (a) - (e)



# **Funding Requirements**

### **Current Service Cost**

The estimated value of the benefits that will accrue on behalf of the active members during 2007/2008 through 2009/2010, is summarized below:

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

	2007/2008	2008/2009	2009/2010
Total current service cost	\$40,211	\$42,825	\$45,609
Estimated members' required contributions*	\$(12,933)	\$(14,147)	\$(14,894)
Estimated employer's current service cost	\$27,278	\$28,678	\$30,715
Employer's current service cost expressed as a percentage of members' required contributions	211%	203%	206%
Employer's current service cost expressed as a			
percentage of pensionable earnings	10.9%	10.9%	11.1%
Expected pensionable earnings	\$250,368	\$263,513	\$277,347

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

The previous valuation determined the total current service cost for 2007/2008 to be \$40,599,000 with estimated employee contributions of \$13,148,000. The resulting employer's current service cost was \$27,451,000 or 209% 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 for 2007/2008 as at 01.07.06	209%
Demographic changes	(2)%
Plan amendments	4%
Employer's current service cost for 2007/2008 as at 01.07.07	211%

# **Special Payments**

# Going-Concern Basis

The present value as at July 1, 2007 of the unfunded special payments that were established in the previous valuation is \$75,790,000.

Due to the experience gain arising since the previous valuation, the funding shortfall as at July 1, 2007, \$66,203,000, is now less than the present value of the special payments that were determined in the previous valuation, \$75,790,000.

In accordance with the *Pension Benefits Act of Ontario*, this gain must first be used to reduce the going-concern unfunded liability which may then be re-amortized over the remainder of the original period or over a shorter period.

Accordingly, the recalculated minimum monthly special payments are as follows:

### **Minimum Monthly Special Payments**

Type of Deficit	Effective Date	Special Payment	Last Payment
Unfunded Liability	July 1, 2007	\$594,538	June 30, 2021

# 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, 2007, 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, 2007	\$594,538	June 30, 2021

# **Employer Contributions**

There is a funding shortfall of \$66,203,000 and no special payments are required for solvency purposes as at July 1, 2007. As such, we recommend that McMaster University make monthly contributions to the Plan from July 1, 2007 to July 1, 2010 as follows.

# Minimum Funding Requirements

The minimum monthly required contributions for the period from July 1, 2007 to July 1, 2010 are as follows:

### **Monthly Employer Contributions**

For current service:

July 1, 2007 - June 30, 2008: 211% of members' required contributions

July 1, 2008 - June 30, 2009: 203% of members' required contributions

July 1, 2009 - June 30, 2010: 206% of members' required contributions

**PLUS** 

Minimum special payments for unfunded liability: \$594,538

On the basis of the members' estimated required contributions, we have estimated the minimum total employer contribution for the period from July 1, 2007 to July 1, 2010 to be as follows:

# Estimated Minimum Employer's Contributions Until July 1, 2010 (\$000)

Year Ending	Current Service Cost	Minimum Special Payments	Minimum Employer's Contribution
June 30, 2008	\$27,278	\$7,134	\$34,412
June 30, 2009	\$28,678	\$7,134	\$35,812
June 30, 2010	\$30,715	\$7,134	\$37,849

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.

# Maximum Eligible Contributions

The maximum eligible employer contribution is equal to the McMaster University current service cost plus the greater of the funding shortfall and the wind-up deficiency. We have estimated the maximum eligible annual contribution for 2007/2008 to be \$93,481,000 as at July 1, 2007.

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# **Actuarial Opinion**

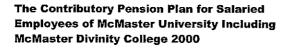
With respect to the Actuarial Valuation as at July 1, 2007 of The Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000 FSCO and Canada Revenue Agency Registration 1079920

Based on the results of this valuation, we hereby certify that, as at July 1, 2007,

- The employer's current service cost for 2007/2008, 2008/2009 and 2009/2010 should be calculated as 211%, 203% and 206% respectively of members' required contributions.
- The employer's current service cost for 2007/2008 is estimated to be \$27,278,000.
- The Plan would be fully funded on a going-concern basis if its assets were augmented by \$66,203,000. 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 \$594,538 until June 30, 2021.
- The Plan has a solvency excess of \$47,117,000 as at July 1, 2007. 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 \$44,654,000 at July 1, 2007.

- 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, 2007 is \$6,033 (including 8% RST) payable no later than March 31, 2008. The PBGF assessment base is \$0. The PBGF liabilities are \$1,029,981,000.
- The transfer ratio of the Plan is 0.97. The Prior Year Credit Balance on July 1, 2007 is \$0. The ratio of solvency assets to solvency liabilities is 1.00.
- 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, 2007 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, 2007 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.

Larrand Shonac	- Cull
Lorraine Gignac	Karen Pang
Fellow of the Society of Actuaries	Fellow of the Society of Actuaries
Fellow of the Canadian Institute of Actuaries	Fellow of the Canadian Institute of Actuaries
June 5, 2008	June 5, 2008
Date	Date



Report on the Actuarial Valuation for Funding Purposes as at July 1, 2007



# **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 fund statements prepared by CIBC Mellon for the period from July 1, 2006 to July 1, 2007.

### **Reconciliation of Plan Assets**

The pension fund transactions for the period from July 1, 2006 to July 1, 2007 are summarized as follows:

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

	2006/2007
As at July 1	\$910,423
PLUS	
Members' contributions	\$10,265
University's contributions	\$34,801
Transfer In	\$236
Investment income and net capital gains (losses)	\$134,996
	\$180,298
LESS	
Transfer Out	\$0
Pensions paid	\$34,497
Lump-sum refunds	\$9,990
Administration fees	\$2,857
	\$47,344
As at June 30	\$1,043,377

This asset value is adjusted to reflect in-transit member contributions of \$857,000, intransit company contributions of \$2,857,000 and in-transit fees payable of \$655,000. The resulting market value is \$1,046,436,000.

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.

# **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, 2007 are provided for information purposes:

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

	Actual Asset Mix as at 01.07.07	Investment Policy Target Mix
Canadian Equities	15.2%	13.0%
U.S. Equities	26.2%	26.0%
Non-North American Equities	26.8%	26.0%
Bonds	31.0%	35.0%
Short-term	0.8%	0.0%
	100.0%	100.0%

## **History of Fund Yields**

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

	Yield Based on Market Value Including Investment Income and Realized and Unrealized
Year	Gains or Losses (%)
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
06-07	14.51



Report on the Actuarial Valuation for Funding Purposes as at July 1, 2007

Appendix B

# Actuarial Methods and Assumptions Actuarial Valuation Methods – Going-concern Basis Valuation of Assets

For this valuation, we have continued to use an adjusted market value method to determine the smoothed value of Plan assets. This method smoothes each year's experience gains and losses (the 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 been physically separated between this Plan and the Original Plan since November 1, 2002. In this valuation, we have therefore determined the smoothed value of assets for this Plan.

The smoothed value of the assets for this Plan, determined as at July 1, 2007 under the adjusted market value method, is \$968,153,000.

The smoothed value of assets was determined as follows (in \$000s):

	2003/04	2004/05	2005/06	2006/07
Market Value at July 1st	\$720,308	\$798,251	\$872,159	\$910,423
Payments into Plan	10,011	28,498	27,747	45,302
Payments out of Plan	(37,297)	(33,809)	(40,870)	(44,487)
Expected return (6.5%)	45,933	51,714	56,264	59,204
Investment experience gains/(losses)	59,296	27,505	(4,877)	72,935
Market Value at June 30th	\$798,251	\$872,159	\$910,423	\$1,043,377

1.	Market Value of Assets at July 1, 2007	\$1,043,377
	LESS	
	Investment experience gains or losses	
	2006/07: \$72,935 x 0.8	\$58,348
	2005/06: \$(4,877) x 0.6	(2,926)
	2004/05: \$27,505 x 0.4	11,002
	2003/04: \$59,296 x 0.2	11,859
2.	Total Adjustment	\$78,283
3.	Smoothed Value of Assets at July 1, 2007 (1. minus 2.)	\$965,094

This smoothed asset value is adjusted to reflect in-transit employee contributions of \$857,000, in-transit company contributions of \$2,857,000 and in-transit fees payable of \$655,000. The resulting smoothed value of asset is \$968,153,000.

The return on the smoothed value of assets since the last valuation at July 1, 2006 was 8.8% per year. This rate is greater than the assumed investment return of 6.5% by 2.3% 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 smoothed 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 of 7.83% less an allowance for investment and administrative expenses of 0.3% per year and less a margin for adverse deviations of 1.03%.

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, 2007 earnings and assumed that such pensionable earnings will increase from July 1, 2008 onward at 5.25% per year.

### 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 2007 level of \$43,700.

# 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 \$2,222.22 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.

# 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.

# 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:

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

**Termination Rates** 

# 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.

# 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.

### Reserve

A contingency reserve for \$2.5 million has been added to the retiree liability.

# 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, 2007, 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, 2007 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, 2007 for such members is based on the assumptions described in Section 3800 – Pension Commuted Values of the Canadian Institute of Actuaries Standard of Practice applicable for July 2007.

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, 2007 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**

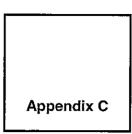
Mortality rates:	UP94 proje	ected to 2015	
	(blending 50% / 50% male/female rates for benefits to be settled through lump sum transfer)		
Interest rates for benefits to be settled through lump sum transfer:	Wind-up:	5.00% per year	
	Solvency:	5.00% per year	
Interest rates for benefits to be settled through annuity purchase:	Wind-up:	4.96% per year	
	Solvency:	4.96% per year	
Final average earnings:	Based on actual pensionable earnings over the averaging period.		
Maximum pension limit:	\$2,222.22 per year of service		
Family composition:	Same as for going-concern valuation		
Contingency reserve:	\$2.5 million		
Termination expenses:	\$950,000		
Annual post-retirement pension increases	Wind-up:	0.46% 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. Also included in the provision are transaction fees related to the liquidation of the Plan's assets and any reduction in the value of the Plan's equity assets resulting from this liquidation.

Because the settlement of benefits on wind-up is assumed to occur on the valuation date and is assumed to be uncontested, the provision for termination expenses does not include custodial, investment management, auditing, consulting and legal expenses that would be incurred between the wind-up date and the settlement date or due to the terms of the hypothetical wind-up being contested.

In determining the provision for termination expenses payable from the Plan's assets, we have assumed that the Plan sponsor would be solvent on the wind-up date.



# **Membership Data**

# **Analysis of Membership Data**

The actuarial valuation is based on membership data as at July 1, 2007, 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.

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

## Membership Data

	July 1, 2007			July 1, 2006			
	Males	Females	Totals	Males	Females	Totals	
Active Members							
Full-tîme							
Number	1,179	1,993	3,172	1,229	1,967	3,196	
Total salary	\$114,957,004	\$121,527,678	\$236,484,681	\$113,592,102	\$114,231,369	\$227,823,471	
Average salary	\$97,504	\$60,977	\$74,554	\$92,426	\$58,074	\$71,284	
Average pensionable service	12.8	10.5	11.4	12.6	10.7	11.4	
Average age	47.6	45.3	46.2	47.4	45.3	46.0	
Total employee contributions with interest*	\$105,177,385	\$74,159,317	\$179,336,702	\$105,198,042	\$71,407,354	\$176,605,396	
Part-time							
Number	71	364	435	27	340	367	
Total salary	\$5,149,443	\$19,011,287	\$24,160,730	\$1,440,981	\$16,000,053	\$17,441,034	
Average salary	\$72,527	\$52,229	\$55,542	\$53,370	\$47,059	\$47,523	
Average pensionable service	13.1	9.0	9.7	8.0	6.7	6.8	
Average age	48.5	46.9	47.2	44.0	45.6	45.4	
Total employee contributions with interest*	\$6,522,058	\$9,962,473	\$16,484,531	\$854,602	<b>\$5,</b> 586,753	\$6,441,355	
Pensioners							
Number	716	700	<b>1</b> ,416	713	644	1,357	
Total annual basic pension	\$24,773,656	\$10,565,794	\$35,339,450	\$24,175,040	\$9,549,564	\$33,724,603	
Average annual basic pension	\$34,600	\$15,094	\$24,957	\$33,906	\$14,829	\$24,852	
Average age	73.5	72.0	72.7	73.4	72.4	72.9	
Deferred Pensioners							
Number	248	315	563	264	338	602	
Total annual pension	790,583	878,212	1,668,795	949,520	1,004,494	1,954,014	
Average annual pension	\$3,188	\$2,788	\$2,964	3,610	2,972	3,251	
Average age	46.8	45.4	46.0	45.9	44.5	45.1	

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

## **Reconciliation of Membership**

Actives	Deferred Vested	Pensioners and Beneficiaries	Total	
3,563	602	1,357	5,522	
283			283	
5	(5)		0	
(59)	(17)		(76)	
(56)	(78)	(1)	(135)	
(59)	59		0	
(1)		(17)	(18)	
(69)	(3)	72	0	
	5	5	10	
3,607	563	1,416	5,586	
	3,563 283 5 (59) (56) (59) (1) (69)	Actives       Vested         3,563       602         283       5         (5)       (5)         (59)       (17)         (56)       (78)         (59)       59         (1)       (69)         (3)       5	Actives         Vested         Beneficiaries           3,563         602         1,357           283         5         (5)           (59)         (17)         (1)           (59)         59         (1)           (1)         (17)         (69)           (3)         72           5         5	

The distribution of the active members by age and pensionable service as at July 1, 2007, is summarized as follows:

Distribution of Active Members by Age Group and Pensionable Service as at 01.07.07

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 +	Total
20-24	19									19
	39,636									39,636
25-29	167	13								180
	44,621	46,427								44,751
30-34	207	97	4							308
	58,194	53,955	41,405							56,641
35-39	224	185	40	15						464
	62,373	69,094	53,529	53,445						64,002
40-44	223	195	57	82	18					575
	61,848	76,563	73,781	57,946	55,283					67,259
45-49	158	147	79	101	86	31	1			603
	62,760	71,406	78,591	82,174	64,840	55,499	**			70,085
50-54	116	109	57	118	87	71	30	1		589
	57,139	71,163	69,762	97,649	104,976	70,168	59,920	**		77,851
55-59	62	70	40	123	81	68	42	20		506
	67,269	62,876	70,056	83,687	113,431	109,875	68,046	59,437		83,743
60-64	30	34	24	65	43	53	52	24		325
	80,279	70,320	60,758	76,991	101,290	123,469	124,912	93,552		95,083
65-69	3	3	1	6	3	4	7	9	2	38
	108,525	66,614	**	102,885	109,424	133,800	, 136,715	114,168	**	121,842
TOTAL	1,209	853	302	510	318	227	132	54	2	3,607
	59,110	68,927	69,567	80,962	93,006	93,625	92,055	83,689	**	72,261

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

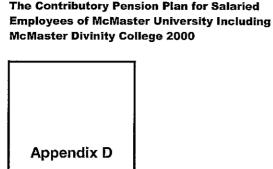
<sup>&</sup>quot;For individual cells with information on two members or less, the average earnings are not disclosed for confidentiality reasons.

The distribution of the inactive members by age as at July 1, 2007, is summarized as follows:

## Distribution of Inactive Members By Age Group as at 01.07.07

	Deferred	Pensioners	Pensioners	and Survivors
		Average		Average
Age	Number	Pension	Number	Pension
20 - 24	1	*		
25 - 29	22	\$1,409		
30 – 34	52	\$1,402		
35 – 39	84	\$1,789		
40 – 44	106	\$2,429		
45 - 49	104	\$3,104		
50 - 54	90	\$3,446	7	\$20,249
55 - 59	56	\$4,674	86	\$25,189
60 - 64	44	\$5,823	195	\$25,742
65 - 69	3	\$1,823	313	\$29,822
70 - 74			258	\$27,796
75 - 79			234	\$24,414
80 - 84	1	*	182	\$21,146
85 - 89			104	\$14,079
90 - 94			34	\$13,159
95 - 99			3	\$11,092
100 +				
Total	563	\$2,964	1,416	\$24,957

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



# **Summary of Plan Provisions**

## Introduction

The following is a summary of the Plan's main provisions in effect on July 1, 2007. It is not intended as a complete description of the Plan.

## **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 and 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.

Report on the Actuarial Valuation for Funding Purposes as at July 1, 2007

## 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, 2007 the number of points required to retire early and receive an unreduced pension and a bridge benefit is amended for all members, except for CAW Local 555 Members, Members who are union employees of Regional Medical Associates ("RMA") and Members who are clinical faculty members billing the Ontario Health Insurance Plan through the RMA.

For current members, the number of points required is as follows:

Retirement Date	Points Required
July 1, 2007 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

• For members who were hired on or after July 1, 2007, the number of points required to retire early and receive an unreduced pension and a bridge benefit is 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:

Contribution Rate below/above YMPE	Faculty Members and TMG Members	Librarians	CAW Local 555 Members
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

Contribution Rate below/above YMPE	Members who are employees of certain affiliated employers*	Members who are non-union employees of RMA of Hamilton	Members who are union employees of RMA of Hamilton	Other Members**
4.25% / 5.75%	April 1, 2007 to June 30, 2007	April 1, 2007 to June 30, 2007	n/a	n/a
5.0% / 6.5%	July 1, 2007 forward	July 1, 2007 forward	July 1, 2007 to June 30, 2008	July 1, 2007 forward
5.5% / 7.0%	n/a	n/a	July 1, 2008 forward	n/a

<sup>\*</sup> Certain affiliated employers are McMaster Association of Part Time Students, McMaster Children's Centre Inc.. McMaster University Faculty Association, and Divinity College.

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 2007 is \$124,221.

<sup>\*\*</sup> Excludes clinical faculty members billing the Ontario Health Insurance Plan through the RMA

## **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) \$2,222.22 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.

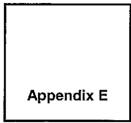
A member who has met the minimum locking-in criteria under the *Pension Benefits Act of Ontario*, determined separately for service and benefits before and after January 1, 1987, may elect only (b) or (c). Such member may, however, receive a return of Required Contributions with Net Interest prior to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

Hire Date	Faculty and TMG Members	Librarians and CAW Local 555 Members	Other Members
On or after	July 1, 2006	June 16, 2006	July 1, 2007

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 Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000. as at July 1, 2007, 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, 2007, 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, 2007; and
- all events subsequent to July 1, 2007 that may have an impact on the results of the valuation have been communicated to the actuary.

me 20/08

Signed

Lilian Scime, AVP (Administration)

Name