



# Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

January 27, 2012

Ms. Elizabeth Miller  
Acting Executive Director and Chief Financial Officer  
Kansas Public Employees Retirement System  
611 S. Kansas Ave., Suite 100  
Topeka, KS 66603-3803

**Re: Cost Study on Removing 80% Maximum Benefit for KP&F**

Dear Liz:

Under KP&F, the benefit paid to a retiring member is 2.5% times Final Average Salary times Years of Service, not to exceed 80% of Final Average Salary. The member contribution rate drops from 7% to 2% when the 80% maximum benefit level is attained. Because of the formula, only members who retire with more than 32 Years of Service are affected by the maximum benefit limitation of 80%. At your request, we have performed a cost study to determine the impact of removing the maximum benefit limitation for the Kansas Police and Firemen's Retirement System (KP&F) and providing for a level contribution rate of 7% of pay for the member's entire career.

**Cost Analysis**

If the maximum benefit limitation of 80% of final average salary is eliminated, without any change in the retirement assumptions. The results of this study are summarized below:

	<b>December 31, 2010 Actuarial Valuation</b>	<b>Remove 80% Maximum Benefit</b>	<b>Change</b>
Unfunded Actuarial Liability	\$575.8M	\$594.0M	\$18.2M
Normal Cost Rate	14.40%	14.50%	0.10%
Employee Contribution Rate	6.79%	7.00%	0.21%
Employer Normal Cost Rate	7.61%	7.50%	(0.11%)
UAL Payment	9.65%	9.93%	0.28%
Total Employer Contribution	17.26%	17.43%	0.17%

This cost study indicated that the employer normal cost rate decreased by 0.11% of pay as the 7% level contribution rate is sufficient to offset the higher normal cost rate due to the removal of the 80% maximum benefit. The increase in the unfunded actuarial liability is estimated at \$18 million with a corresponding increase in the UAL payment of 0.28%. Therefore, the total increase in the KP&F contribution rate, had this change been reflected in the December 31, 2010, would have been 0.17% of payroll.

3906 Raynor Pkwy, Suite 106, Bellevue, NE 68123

Phone (402) 905-4461 • Fax (402) 905-4464

[www.CavMacConsulting.com](http://www.CavMacConsulting.com)

Offices in Englewood, CO • Kennesaw, GA • Bellevue, NE • Hilton Head Island, SC



Ms. Elizabeth Miller  
January 27, 2012  
Page 2

Given that the removal of the maximum benefit has the potential to motivate members to retire later, we felt that it was appropriate to develop an alternative set of retirement assumptions to test the sensitivity of the cost study results. The proposed change should only impact the retirement experience of those members who would retire with more than 32 years of service. Therefore, we lowered the retirement rates for only those members with more than 32 years of service by 5% (e.g. from 25% to 20%). The results are shown below:

	<b>December 31, 2010 Actuarial Valuation</b>	<b>Remove 80% Maximum Benefit and Change Retirement Rates</b>	<b>Change</b>
Unfunded Actuarial Liability	\$575.8M	\$589.1M	\$13.3M
Normal Cost Rate	14.40%	14.47%	0.07%
Employee Contribution Rate	6.79%	7.00%	0.21%
Employer Normal Cost Rate	7.61%	7.47%	(0.14%)
UAL Payment	9.65%	9.86%	0.21%
Total Employer Contribution	17.26%	17.33%	0.07%

The increase in the employer contribution rate using the alternative set of retirement assumptions was 0.07% and the increase in the UAL was \$13 million. The 5% reduction in the retirement rates was used as a reasonable alternative assumption for the members impacted by the change. Please note that it is difficult, if not impossible, to predict the actual impact of this benefit change on future retirement behavior. Therefore, it is possible for actual experience in the future to vary from either set of retirement assumptions used in this cost study. If that occurs, the actual cost of removing the maximum benefit will also be different than shown in this letter.

#### **Data, Assumptions and Methodology**

The analysis contained in this letter is based on the December 31, 2010 actuarial valuation. To the extent that any of that data is inaccurate, our analysis may need to be revised. Unless otherwise noted, the assumptions and methods used in analyzing this proposal are the same as those used in the December 31, 2010 actuarial valuation and are shown in Appendix C of that report.

The comments and analysis contained in this letter are not intended to give exact calculations of costs. They should be considered to be estimates. The emerging costs will vary from those presented in this letter to the extent that actual experience differs from that projected by the actuarial assumptions. This cost analysis has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statement of Actuarial Opinion of the American Academy of Actuaries.



Ms. Elizabeth Miller  
January 27, 2012  
Page 3

We have not explored any legal issues with respect to the proposed plan changes. We are not attorneys and cannot give legal advice on such issues. We suggest that you review this proposal with counsel.

We, Patrice A. Beckham, FSA and Brent A. Banister, FSA, are consulting actuaries with Cavanaugh Macdonald Consulting, LLC. We are members of the American Academy of Actuaries, Fellows of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you have any questions or additional information is needed, please let us know.

Sincerely,

Handwritten signature of Patrice A. Beckham in cursive script.

Patrice A. Beckham, FSA, EA, FCA, MAAA  
Principal and Consulting Actuary

Handwritten signature of Brent A. Banister in cursive script.

Brent A. Banister, PhD, FSA, EA, FCA, MAAA  
Chief Pension Actuary