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November 17, 2014

Mr. Joey Greive, CFA, CFP
Treasurer
City of Jacksonville
117 West Duval Street, Suite 300
Jacksonville, FL 32202

Re: Key Assumptions Used in Milliman Projections Dated June 4, 2014

Dear Joey:

The purpose of this letter is to compile a list of the key assumptions used in our projections dated June 4, 2014 for the Jacksonville Police and Fire Pension Fund on the proposed 2014 Retirement Reform Agreement, and discuss how the assumptions were derived and the impact on the analysis if they were modified. Please note that we are not the actuary for the Police and Fire Pension Fund and did not determine the assumptions used in the actuarial analysis. Our projections are based on the assumptions currently used by the Fund actuary, Pension Board Consultants, as stated in the October 1, 2013 valuation report.

It is important to note that no two actuaries would necessarily determine the same actuarial assumptions given the same set of data. Actuarial Standards of Practice require that the assumptions be reasonable. To the extent that actual experience differs from that assumed, modifications to the assumptions occur over time to bring the assumptions closer to recent experience. Actuarial assumptions do not determine the actual cost of benefits, but help determine the contribution requirements necessary, along with actuarial methods, such that promised benefits are paid to its members. The actual cost of benefits is based on the actual experience of the Fund.

Inflation Rate

The assumed inflation rate is basis for all of the other economic assumptions. It affects other economic assumptions including payroll growth, individual member salary increases, and investment return. It is intended to be a long term assumption. Pension Board Consultants used an inflation assumption of 2.50% in the October 1, 2013 valuation report.

Investment Return

The assumed rate of investment return is used to discount the projected future benefit payments of the Fund to the valuation date. As such, it is one of the most important assumptions used in valuing the plan’s liabilities and developing actuarially calculated contribution rates. The assumption is intended to reflect the long-term expected future return on the portfolio of assets that fund the benefits. The assumption is a combination of expected inflation plus the real rate of return expected to be earned by the Fund's investments. The assumption is typically derived based on a 30-year model of capital market assumptions and not short-term expectations.

Pension Board Consultants used an assumption of 7.0% in the October 1, 2013 Valuation. The actuary has reduced the assumption over the past few valuations; it was 8.50% in the October 1, 2008 valuation, 7.75% in the October 1, 2011 valuation, and 7.0% in the October 1, 2012 and October 1, 2013 valuation. The current 7.0% assumption was also recommended by the Retirement Reform Task Force, such that the Fund has a 50% chance of exceeding this assumption over time. In general, lowering this assumption increases the short-term annual contribution requirements of a pension plan but increases the projected solvency over the long-term.

Payroll Growth and Real Wage Growth

Real Wage Growth combined with inflation represents the expected growth in total payroll for a stable population. This includes not only base pay but step increases, merit pay, etc. The payroll growth assumption is used to develop the annual amount necessary to amortize the unfunded actuarial liability as a level percent of expected payroll. Changes in payroll due to changes in the number of active members are not always reflected in this assumption as well as changes in demographics, i.e. if many members with higher salaries are expected to retire and be replaced with members with lower salaries resulting in lower payroll growth than expected.

Pension Board Consultants used an assumption of 3.25% in the October 1, 2013 Valuation. The State of Florida reviews this assumption every three years. To the best of our knowledge from the PFPF, the State has not challenged this assumption.

Individual Member Pay Increases

The pay increase assumption for an individual member has three theoretical components:

- Inflation
- Real wage inflation
- Merit increase

The first two factors are system-wide. The third factor is member-specific and is tied to promotions, step increases and other individual pay increase drivers.

Pension Board Consultants used an assumption of 4.0% per annum in the October 1, 2013 Valuation report. In general, lowering this assumption lowers plan costs and liability estimates as smaller retirement benefits are expected to be paid.

Post Retirement Mortality Tables

Mortality rates are used to project the length of time benefits will be paid to current and future retirees and beneficiaries. The selection of a mortality assumption affects plan liabilities because the estimated value of retiree benefits depends on how long the benefit payments are expected to continue. For purposes of this letter, we have only set-forth the mortality assumption for non-disabled retired members.

Pension Board Consultants used an assumption of the RP-2000 Combined Healthy Mortality Table, separate by sex, and Projected by Scale AA to the valuation date of 2013. For purposes of our 35-year projection, we projected the mortality by Scale AA to each future valuation date.

Retirement Assumptions

The retirement assumptions used in the actuarial valuation include the following assumptions:

- DROP Entry
- Immediate Retirement (at time of first eligibility for unreduced retirement)
- Deferred Retirement (for members that do not enter DROP or elect immediate retirement)

These assumptions are critical for two reasons: 1) it determines a member's working lifetime (impacting the period to fund the benefits) as well as the amount of annual benefits, and 2) the point at which benefits are expected to begin and combined with the postretirement mortality assumption, the length of time the benefits are expected to be received.

Pension Board Consultants used the following table as the retirement assumption:

Years of Service	Rate*
20	0.40
21-29	0.30
30	1.00

Assumed 100% retirement at age 61.

The assumption did not distinguish between DROP Entry and Immediate Retirement.

The experience in the 2011 Experience Study reflect a trend of members retiring or DROPPing earlier, thereby putting upwards pressure on Fund costs. Earlier retirement reduces the period to fund the benefit and increases the period the member is expected to receive the benefit.

Note, in estimating the impact of the RRA, Milliman modified the assumed rates of retirement for post-September 30, 2014 hires due to changes in the retirement eligibility conditions set forth in the agreement including DROP as follows.

Years of Service	Rate*
25	15%
26	3%
27-29	5%
30	70%
31-34	10%
35	100%

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Based on the increases in retirement eligibility conditions set forth in the agreement, we expect members to work longer to reach an unreduced retirement.

*The rates reflect the percentage of active participants with the noted Years of Service who are assumed to retire prior to accruing another Year of Service.

Size of workforce

The actuarial valuation is based on a snapshot of census data as of the valuation date. It does not take into account members expected to be hired in future years. The size of the workforce assumption is used only in the actuarial projections. The actuarial projections effectively perform an actuarial valuation at each subsequent valuation date based on a snapshot of the projected census data. Typically, actuarial projections assume the workforce will remain constant in each future year. Based on our discussions with the City, we believe this is a reasonable assumption for these projections as we are unaware of any plans to expand or shrink the workforce at this time. If hiring outpaces terminations, thereby raising the number of covered employees, actual experience would lead to higher aggregate payroll growth, increased employee contributions, and increased benefit payments, and a larger payroll to help with UAL amortization purposes.

Please call if you would like to further discuss the letter.

Sincerely,

Robert Dezube

Robert S. Dezube, FSA
Consulting Actuary

CC: C. Ronald Belton
Derrel Chatmon
Chris Hand

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