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VIA E-MAIL and USPS

March 4, 2011

Mr. Stanley L. McDivitt
Retirement Administrator
City of Fresno Retirement Systems
2828 Fresno Street, Suite 201
Fresno, CA 93721-1327

**Re: City of Fresno Employees Retirement System
June 30, 2010 Surplus Projections**

Dear Stan:

We have prepared a six-year surplus projection from the June 30, 2010 to the June 30, 2016 valuations. Our projections are based on the results of the latest actuarial valuation as of June 30, 2010, updated to include the three sets of alternative market rates of return for the next six-year period as provided by your office. Other than the inclusion of the assumed alternative returns provided by your office and the City's payroll projections for the next several years, we have not assumed any other deviations in actuarial experience for our projections from the June 30, 2011 to the June 30, 2016 valuations.

BACKGROUND

The City Budget Office has provided us with the projected reduction in permanent payrolls for the next few years. We have incorporated this information in our projections. The payroll reductions provided by the City and the method we have used in modeling those reductions are described later in this report.

Based on the Fresno Municipal Code, we have adjusted the amortization period for unfunded actuarial accrued liabilities to a 10-year period (based on the current remaining working lifetimes of active members). Surplus, if any, will continue to be amortized over 15 years.

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This report provides a projection of each of the following items for the above six-year period. For reference purposes, we have also included the results from the June 30, 2010 valuation.

These tables of results can be found in Attachments 1 and 2.

Table A – Funding Ratios

Table B – Distributable Surplus (Separated into City and PRSB portions)

Table C – Employer Contribution Rates, Before surplus allocation

Table D – Employer Contribution Rates, After surplus allocation, both in dollars and percent of payroll

Table E – Member Contribution Rates (Before and after surplus allocation)

Table F – Monthly PRSB Benefit

The tables of results in Attachment 1 are labeled as A1 through F1 to reflect Approach #1. The tables in Attachment 2 are labeled as A2 through F2 to reflect Approach #2.

As detailed below, the two approaches differ in that Approach #1 assumes no employee population growth (or reduction) while Approach #2 includes employee population reduction based on City Budget Office projections. A one-page comparison of the employer rates after surplus allocation under the two approaches (from Tables D1 and D2) is provided in Attachment 3.

Both approaches determine available surplus based on the five-year smoothed actuarial value of assets (AVA). As discussed later in the report, no surplus is projected to be available for distribution after the June 30, 2011 valuation using the alternative market rates of return assumed in this study. If surplus were to be measured using market value of assets (MVA), there would be an immediate increase in the rate determined in the June 30, 2011 valuation for the 2012/2013 fiscal year, but the contribution rates after two to three years would be substantially unaffected. For that reason, we have only provided the results under the AVA method and not under the MVA method.

Most of the assumptions used in these projections mirror those used in the June 30, 2010 actuarial valuation. We have also assumed no changes to the current benefit structures.

PROJECTION APPROACHES

The two alternative approaches included in this report are summarized in the chart below.

	Approach #1	Approach #2
Demographic Assumptions	Same as actuarial valuation, including zero net employee population growth (or reduction)	Same as actuarial valuation, including employee population reductions based on City Budget Office projections
Investment Return, Inflation and Salary Scale Assumptions	Same as actuarial valuation, including 8% interest	Same as Approach #1
Asset value for purpose of determining surplus allocation	Same as current method, five-year smoothing for actuarial value of assets	Same as Approach #1
Market Investment Return Scenarios	#1 – Assumed: 20% (10/11), 8% thereafter #2 – Optimistic: 24% (10/11), 9% thereafter #3 – Pessimistic: 10% (10/11), 7% thereafter	Same as Approach #1

Approach #2 is similar to Approach #1, but the size of the City’s active population over the next several years are based on the City’s Budget Office projections. Additional detail on both the market investment return scenarios and the projection approaches is provided below.

For the purpose of determining the City’s contribution rate to the unfunded actuarial accrued liability (UAAL), the System continued to use an asset smoothing method in determining the actuarial value of assets. Under that method, if the System earns less or more than the assumed rate of 8% per year on a market value basis, any such gains or losses would be recognized over a period of five years.

MARKET INVESTMENT RETURN SCENARIOS

The three investment return scenarios selected by the System are described below:

Scenario #1 assumes sustained expected capital market conditions after 2011. The System’s net investment return on a market value basis (after deducting investment and administrative expense) is 20% for fiscal year 2010/2011 and then remains constant at 8% after 2011.

Scenario #2 assumes better than expected capital market conditions. The System’s net investment return on a market value basis (after deducting investment and administrative expense) is 24% for fiscal year 2010/2011 and then remains constant at 9% after 2011.

Scenario #3 assumes worse than expected capital market conditions. The System’s net investment return on a market value basis (after deducting investment and administrative expense) is 10% for fiscal year 2010/2011 and then remains constant at 7% after 2011.

Please note that a range of market return is used for 2010/2011 because the actual return for the year cannot be determined until after June 30, 2011.

The funded ratio measured using the AVA and MVA as of June 30, 2010 was 122.5% and 99.1%, respectively. After incorporating the investment losses prior to June 30, 2010, only the last of the three investment scenarios results in net actuarial losses that decrease the funded ratio of the System at the end of the six-year projection period, relative to the June 30, 2010 valuation. These actuarial losses also impact the projected surplus, City contribution rates and PRSB benefits.

CHANGES IN EMPLOYEE POPULATION AND ASSOCIATED PAYROLL

Approach #2 includes a reduction in the City’s projected permanent active workforce and associated payroll. The followings are the payrolls over the six-year projection period.

(\$ in millions)							
Fiscal Year	10/11	11/12	12/13	13/14	14/15	15/16	After 15/16
Projected Payroll After Reduction	\$133	\$127	\$124	\$125	\$127	\$128	Payroll increased by 4%*
Cumulative Decrease in Payroll Reflected	\$1.5	\$1.0					

* 4% is the assumption used in the actuarial valuation to project increases in annual payroll.

Similar to our last study in 2009, we have assumed in this study that the above active workforce and associated payroll reductions are generally across-the-board and would not be based solely on eliminating positions based on seniority of the employees. For the projections, we have approximated the reduced payrolls by increasing the rates of withdrawals (refund of contributions) and deferred vested terminations and by controlling the number of new employees projected to be hired by the City.

When appropriate, we have used a new member demographic profile (i.e., proportion of male and female, age at entry, salary at entry, etc.) for each future year based on the demographic profile for active members who entered the System during the last three years. The following table provides the new member profiles used in the projection:

Assumed Entry Age	Annual Pay at Entry (in 2010 Dollars)	% Male and % Female
38	\$49,000	73% Male and 27% Female

PROJECTED VERSUS ACTUAL PAYROLLS

In the regular annual actuarial valuation, there are always some differences between (1) the estimated projected payroll based on a prior year's payroll provided for the valuation and used in determining the City's contribution rate, and (2) the City's actual payroll for the current year that will be used in determining the City's actual dollar contribution requirements.

For instance, based on the 4% annual payroll increase assumption and the actual 2009/2010 pensionable salaries reported for all active members for the June 30, 2010 valuation, we projected a 2010/2011 payroll of \$131 million in that valuation. In addition, in setting the City's contribution rate for 2011/2012 in that valuation, we assumed the projected payroll of \$131 million would increase by another 4% to \$136 million. The \$136 million payroll, together with the projected surplus as of June 30, 2011, were used in the June 30, 2010 valuation to determine the contribution offset available to the City and the net City rate. Any difference between this projected payroll of \$136 million and the City's actual payroll for 2011/2012 (i.e., \$127 million as estimated above under Approach #2) will be taken into consideration when we develop the System's liability as of June 30, 2012. Generally, such differences should not have a large impact in the determination of the System's unfunded/prefunded actuarial accrued liability.

AMORTIZATION POLICY FOR UNFUNDED ACTUARIAL ACCRUED LIABILITIES

It is our understanding that under Section 3-530 of the Fresno Municipal Code, UAAL should be funded during the remaining working lifetimes of the members of the System. As the average remaining working lifetimes of the current active members is about 10 years, we have used a non-decreasing 10-year period to amortize the UAAL for these projections. Surplus will continue to be amortized over fifteen years. Since the System has not had an UAAL for many years, the Board may want to review the above Section of the Code and Board policy to determine if they remain appropriate in setting the City's UAAL rate. We are available to assist the Board in that review process.

SUMMARY OF RESULTS

The following are points of note about the results:

1. Projected Funded Ratios (Tables A1 and A2 and Charts A1 and A2) – Under both approaches, the System's funded ratio drops below 110% (the threshold for the distribution of actuarial surplus) after the June 30, 2011 valuation and below 100% in the June 30, 2013 valuation under the pessimistic scenario. That means that under that pessimistic scenario, no surplus would be available for distribution around the June 30, 2012 valuation and an UAAL rate may have to be paid soon after under the pessimistic scenario. However, under both the assumed and optimistic scenarios, the funded ratio would stay above 100% over the projection period.
2. Distributable Surplus (Tables B1 and B2) – There is a 12-month delay between the date of the actuarial valuation and the date that the rate determined in that valuation will be implemented by the City in determining the contributions for the employer and the employee. This 12-month delay is critical in understanding the setting of the City's net contribution rate when we have unrecognized investment losses from 2008/2009 that will have to be recognized over the next several years. Effective with the June 30, 2010 valuation, the Board approved a change in the methodology from using the assumed rate of return of 8% to using the projected actuarial rate of return, including the recognition of deferred losses under the smoothing method, in projecting allocable surplus in the regular valuation. Based on the funded ratio dropping below 110% as discussed in 1, there will be no surplus available for distribution after the June 30, 2011 valuation. However, there will be surplus available for distribution again in the June 30, 2014 valuation under the optimistic scenario when most of the unrecognized investment gains from 2010/2011 (from an assumed return of 24%) are recognized.

3. Employer Contribution Rates Before Surplus Allocation (Tables C1 and C2 and Charts C1 and C2) –The System’s employer normal cost rate is about 11% of payroll so an employer rate in excess of the 11% of payroll would generally mean there is a contribution required to amortize the UAAL. In addition, the contribution rates in C2 are generally higher than those in C1 because under Approach #2, there will be a reduction in the City’s active population with fewer new hires. This means there will be an increase in the employer normal cost rate under the System’s projected unit credit funding method as the active workforce gets older on average.
4. Employer Contribution Rates After Surplus Allocation (Tables D1 and D2 and Charts D1 and D2) – The employer’s rate is expected to be between 10% - 12% of payroll for the six-year projection period under the assumed scenario. Under the optimistic and pessimistic scenarios, the employer’s rate is expected to be between 7% - 12% and 10% - 15% of payroll, respectively.
5. Member Contribution Rates (Before and After Surplus Allocation (Tables E1 and E2 and Charts E1 and E2) – Members would be expected to start paying their COLA contributions as a result of the depletion of surplus after the June 30, 2011 valuation. This is expected to continue over the six-year period with the exception of the optimistic scenario that starts to show a surplus in the June 30, 2014 valuation as discussed in 2.
6. Monthly PRSB Benefits (Tables F1 and F2 and Charts F1 and F2) – PRSB benefits will be reduced to almost \$0 in 2012.

A one-page comparison of the employer rates after surplus allocation under the two approaches (from Tables D1 and D2) is provided in Attachment 3.

OTHER SPECIAL CONSIDERATIONS

The projections have been prepared under the supervision of Andy Yeung, ASA, MAAA, FCA, EA. Except as noted in this report, the actuarial assumptions and methods used in this projection are exactly the same as those adopted by the Board for the June 30, 2010 actuarial valuation.

We have also applied the current asset smoothing policy of five-year smoothing with no "corridor" requirement to constrain the AVA to be within a set percentage of the MVA. We believe that this policy of five-year smoothing with no MVA corridor complies with the applicable actuarial standards of practice.

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Finally, we emphasize that projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as illustrations of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

Please let us know if you have any questions.

Sincerely,



Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President & Actuary



Andy Yeung, ASA, MAAA, FCA, EA
Vice President & Associate Actuary

SUV/bqb
Enclosures

ATTACHMENT 1

SUMMARY OF RESULTS USING APPROACH #1 – ZERO NET EMPLOYEE POPULATION GROWTH, USING FIVE-YEAR SMOOTHED ACTUARIAL VALUE OF ASSETS IN DETERMINING AVAILABLE SURPLUS

The following are points of note about the Tables:

- Table A1 – Projected Funding Ratios
- Table B1 – Distributable Surplus (Separated into City and PRSB portions)
- Table C1 – Employer Contribution Rates, Before surplus allocation
- Table D1 – Employer Contribution Rates, After surplus allocation
- Table E1 – Member Contribution Rates (Before and after surplus allocation)
- Table F1 – Monthly PRSB Benefit

Table A1 - Projected Funded Ratios	Valuation Date						
	06/30/2010	06/30/2011	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016
Assumed: 20%(10/11), 8%	122.5%	115.0%	106.9%	103.7%	106.9%	108.8%	108.5%
Optimistic: 24%(10/11), 9%	122.5%	115.8%	108.9%	107.1%	112.0%	115.7%	116.4%
Pessimistic: 10%(10/11), 7%	122.5%	113.1%	102.3%	96.3%	96.6%	96.0%	94.7%

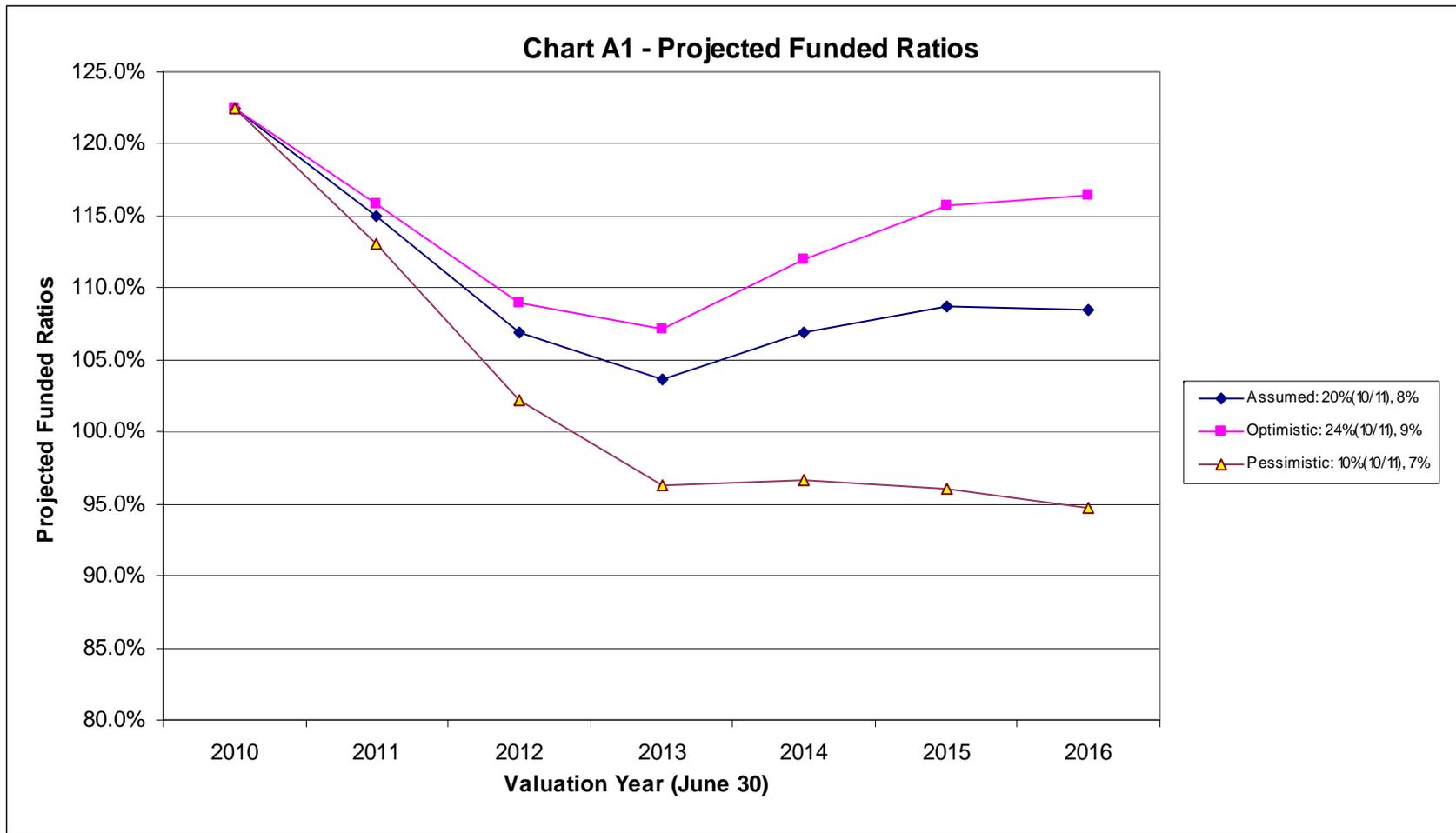


Table B1 - Distributable Surplus (\$000)							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Assumed: 20%(10/11), 8%							
Used in Settling <u>Actual</u> Employer Surplus for Current Fiscal Year							
Member COLA Contribution Offset	\$3,780	\$1,792	\$0	\$0	\$0	\$0	\$0
PRSB Allocation	\$293	\$0	\$0	\$0	\$0	\$0	\$0
City COLA Contribution Offset	\$3,780	\$1,792	\$0	\$0	\$0	\$0	\$0
Additional City Allocation	\$587	\$0	\$0	\$0	\$0	\$0	\$0
Used in <u>Projecting</u> Employer Surplus for Next Fiscal Year							
City COLA Contribution Offset	\$3,412	\$1,660	\$0	\$0	\$0	\$0	\$0
Additional City Allocation	\$558	\$0	\$0	\$0	\$0	\$0	\$0
Optimistic: 24%(10/11), 9%							
Used in Settling <u>Actual</u> Employer Surplus for Current Fiscal Year							
Member COLA Contribution Offset	\$3,780	\$2,075	\$0	\$0	\$831	\$2,455	\$2,936
PRSB Allocation	\$293	\$0	\$0	\$0	\$0	\$0	\$0
City COLA Contribution Offset	\$3,780	\$2,075	\$0	\$0	\$831	\$2,455	\$2,936
Additional City Allocation	\$587	\$0	\$0	\$0	\$0	\$0	\$1
Used in <u>Projecting</u> Employer Surplus for Next Fiscal Year							
City COLA Contribution Offset	\$3,412	\$1,942	\$0	\$0	\$820	\$2,423	\$2,899
Additional City Allocation	\$558	\$0	\$0	\$0	\$0	\$0	\$0
Pessimistic: 10%(10/11), 7%							
Used in Settling <u>Actual</u> Employer Surplus for Current Fiscal Year							
Member COLA Contribution Offset	\$3,780	\$1,084	\$0	\$0	\$0	\$0	\$0
PRSB Allocation	\$293	\$0	\$0	\$0	\$0	\$0	\$0
City COLA Contribution Offset	\$3,780	\$1,084	\$0	\$0	\$0	\$0	\$0
Additional City Allocation	\$587	\$0	\$0	\$0	\$0	\$0	\$0
Used in <u>Projecting</u> Employer Surplus for Next Fiscal Year							
City COLA Contribution Offset	\$3,412	\$978	\$0	\$0	\$0	\$0	\$0
Additional City Allocation	\$558	\$1	\$0	\$0	\$0	\$0	\$0

Table C1 - Employer Contribution Rates (Before Surplus Allocation)							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Assumed: 20%(10/11), 8%	11.09%	10.70%	10.95%	10.98%	10.86%	10.75%	10.66%
Optimistic: 24%(10/11), 9%	11.09%	10.70%	10.95%	10.98%	10.86%	10.75%	10.66%
Pessimistic: 10%(10/11), 7%	11.09%	10.70%	10.95%	10.98%	13.58%	13.22%	13.60%

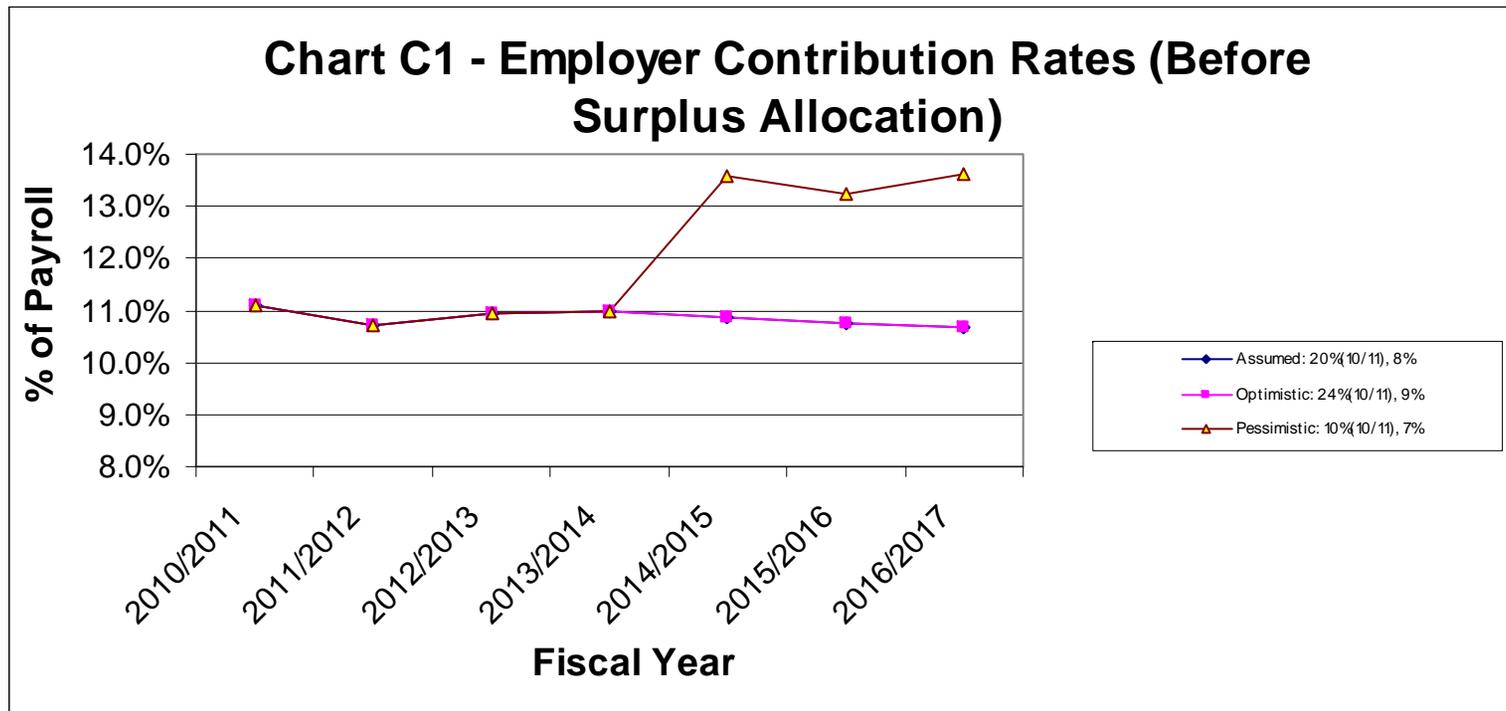


Table D1 - Employer Contribution Rates (After Surplus Allocation) (\$000)							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Assumed: 20%(10/11), 8%							
Used in Settling <u>Actual</u> Employer Contributions for Current Fiscal Year							
Employer Contribution Before Offset*	\$14,553	\$14,673	\$15,628	\$16,173	\$16,773	\$17,305	\$18,027
City COLA Contribution Offset*	-\$3,780	-\$1,792	\$0	\$0	\$0	\$0	\$0
Additional City Allocation*	-\$587	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (Prior Years)*	\$1,622	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$11,808	\$12,881	\$15,628	\$16,173	\$16,773	\$17,305	\$18,027
Actual City Contributions Based on Contribution Rate Calculated in Prior Year	-\$8,753	-\$14,015	-\$16,313	-\$17,970	-\$16,773	-\$17,305	-\$18,044
Application of Prepaid Employer Contributions	\$0	\$3,309	\$2,353	\$1,804	\$8	\$8	\$17
Contributions After Applying Prepaid Employer Contributions**	\$3,056	\$2,175	\$1,668	\$7	\$8	\$8	\$0
Balance in Employer Surplus Reserve Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance in Prepaid Employer Contributions	-\$3,182	-\$2,262	-\$1,735	-\$7	-\$8	-\$9	\$8
Payroll	\$131,224	\$137,133	\$142,719	\$147,292	\$154,445	\$160,977	\$169,108
Used in <u>Projecting</u> Employer Contributions for Next Fiscal Year							
Employer Contribution Before Offset	\$14,603	\$15,615	\$16,300	\$16,635	\$17,263	\$17,854	\$18,335
City COLA Contribution Offset	-\$3,412	-\$1,660	\$0	\$0	\$0	\$0	\$0
Additional City Allocation	-\$558	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (Prior Years)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$10,632	\$13,955	\$16,300	\$16,635	\$17,263	\$17,854	\$18,335
Contributions After Applying Prepaid Employer Contributions**	\$13,941	\$16,308	\$18,104	\$16,642	\$17,271	\$17,863	\$18,326
Contributions After Applying Prepaid Employer Contributions (% of pay)**	10.2%	11.4%	12.2%	10.9%	10.8%	10.7%	10.4%
Payroll (Projected)	\$136,473	\$142,618	\$148,428	\$153,184	\$160,622	\$167,416	\$175,872

*Normal cost only.

**Normal cost plus UAAL (if any).

Table D1 - Employer Contribution Rates (After Surplus Allocation) (\$000) (Cont'd)							
	Fiscal Year						
	<u>2010/2011</u>	<u>2011/2012</u>	<u>2012/2013</u>	<u>2013/2014</u>	<u>2014/2015</u>	<u>2015/2016</u>	<u>2016/2017</u>
Optimistic: 24%(10/11), 9%							
Used in Settling <u>Actual</u> Employer Contributions for Current Fiscal Year							
Employer Contribution Before Offset*	\$14,553	\$14,673	\$15,628	\$16,173	\$16,773	\$17,305	\$18,027
City COLA Contribution Offset*	-\$3,780	-\$2,075	\$0	\$0	-\$831	-\$2,455	-\$2,936
Additional City Allocation*	-\$587	\$0	\$0	\$0	\$0	\$0	-\$1
City Surplus Reserve Account (Prior Years)*	\$1,622	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$11,808	\$12,598	\$15,628	\$16,173	\$15,942	\$14,850	\$15,090
Actual City Contributions Based on Contribution Rate Calculated in Prior Year	-\$8,753	-\$14,015	-\$15,728	-\$18,264	-\$16,788	-\$15,583	-\$13,799
Application of Prepaid Employer Contributions	\$0	\$3,309	\$2,047	\$2,106	\$846	\$733	-\$1,291
Contributions After Applying Prepaid Employer Contributions**	\$3,056	\$1,892	\$1,947	\$14	\$0	\$0	\$0
Balance in Employer Surplus Reserve Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance in Prepaid Employer Contributions	-\$3,182	-\$1,968	-\$2,025	-\$15	\$864	\$1,697	\$492
Payroll	\$131,224	\$137,133	\$142,719	\$147,292	\$154,445	\$160,977	\$169,108
Used in <u>Projecting</u> Employer Contributions for Next Fiscal Year							
Employer Contribution Before Offset	\$14,603	\$15,615	\$16,300	\$16,635	\$17,263	\$17,854	\$18,335
City COLA Contribution Offset	-\$3,412	-\$1,942	\$0	\$0	-\$820	-\$2,423	-\$2,899
Additional City Allocation	-\$558	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (Prior Years)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$10,632	\$13,673	\$16,300	\$16,635	\$16,442	\$15,431	\$15,436
Contributions After Applying Prepaid Employer Contributions**	\$13,941	\$15,720	\$18,406	\$16,650	\$15,543	\$13,666	\$14,924
Contributions After Applying Prepaid Employer Contributions (% of pay)**	10.2%	11.0%	12.4%	10.9%	9.7%	8.2%	8.5%
Payroll (Projected)	\$136,473	\$142,618	\$148,428	\$153,184	\$160,622	\$167,416	\$175,872

*Normal cost only.

**Normal cost plus UAAL (if any).

Table D1 - Employer Contribution Rates (After Surplus Allocation) (\$000) (Cont'd)							
	Fiscal Year						
	<u>2010/2011</u>	<u>2011/2012</u>	<u>2012/2013</u>	<u>2013/2014</u>	<u>2014/2015</u>	<u>2015/2016</u>	<u>2016/2017</u>
Pessimistic: 10%(10/11), 7%							
Used in Settling <u>Actual</u> Employer Contributions for Current Fiscal Year							
Employer Contribution Before Offset*	\$14,553	\$14,673	\$15,628	\$16,173	\$16,773	\$17,305	\$18,027
City COLA Contribution Offset*	-\$3,780	-\$1,084	\$0	\$0	\$0	\$0	\$0
Additional City Allocation*	-\$587	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (Prior Years)*	\$1,622	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$11,808	\$13,589	\$15,628	\$16,173	\$16,773	\$17,305	\$18,027
Actual City Contributions Based on Contribution Rate Calculated in Prior Year	-\$8,753	-\$14,015	-\$17,769	-\$17,218	-\$16,788	-\$17,305	-\$18,027
Application of Prepaid Employer Contributions	\$0	\$3,309	\$3,119	\$1,058	\$15	\$0	\$0
Contributions After Applying Prepaid Employer Contributions**	\$3,056	\$2,883	\$978	\$12	\$4,194	\$3,980	\$4,970
Balance in Employer Surplus Reserve Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance in Prepaid Employer Contributions	-\$3,182	-\$2,999	-\$1,017	-\$12	\$3	\$3	\$3
Payroll	\$131,224	\$137,133	\$142,719	\$147,292	\$154,445	\$160,977	\$169,108
Used in <u>Projecting</u> Employer Contributions for Next Fiscal Year							
Employer Contribution Before Offset	\$14,603	\$15,615	\$16,300	\$16,635	\$17,263	\$17,854	\$18,335
City COLA Contribution Offset	-\$3,412	-\$978	\$0	\$0	\$0	\$0	\$0
Additional City Allocation	-\$558	-\$1	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (Prior Years)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$10,632	\$14,636	\$16,300	\$16,635	\$17,263	\$17,854	\$18,335
Contributions After Applying Prepaid Employer Contributions**	\$13,941	\$17,755	\$17,358	\$20,808	\$21,231	\$22,772	\$25,210
Contributions After Applying Prepaid Employer Contributions (% of pay)**	10.2%	12.4%	11.7%	13.6%	13.2%	13.6%	14.3%
Payroll (Projected)	\$136,473	\$142,618	\$148,428	\$153,184	\$160,622	\$167,416	\$175,872

*Normal cost only.

**Normal cost plus UAAL (if any).

Chart D1 - Employer Contribution Rates (After Surplus Allocation)

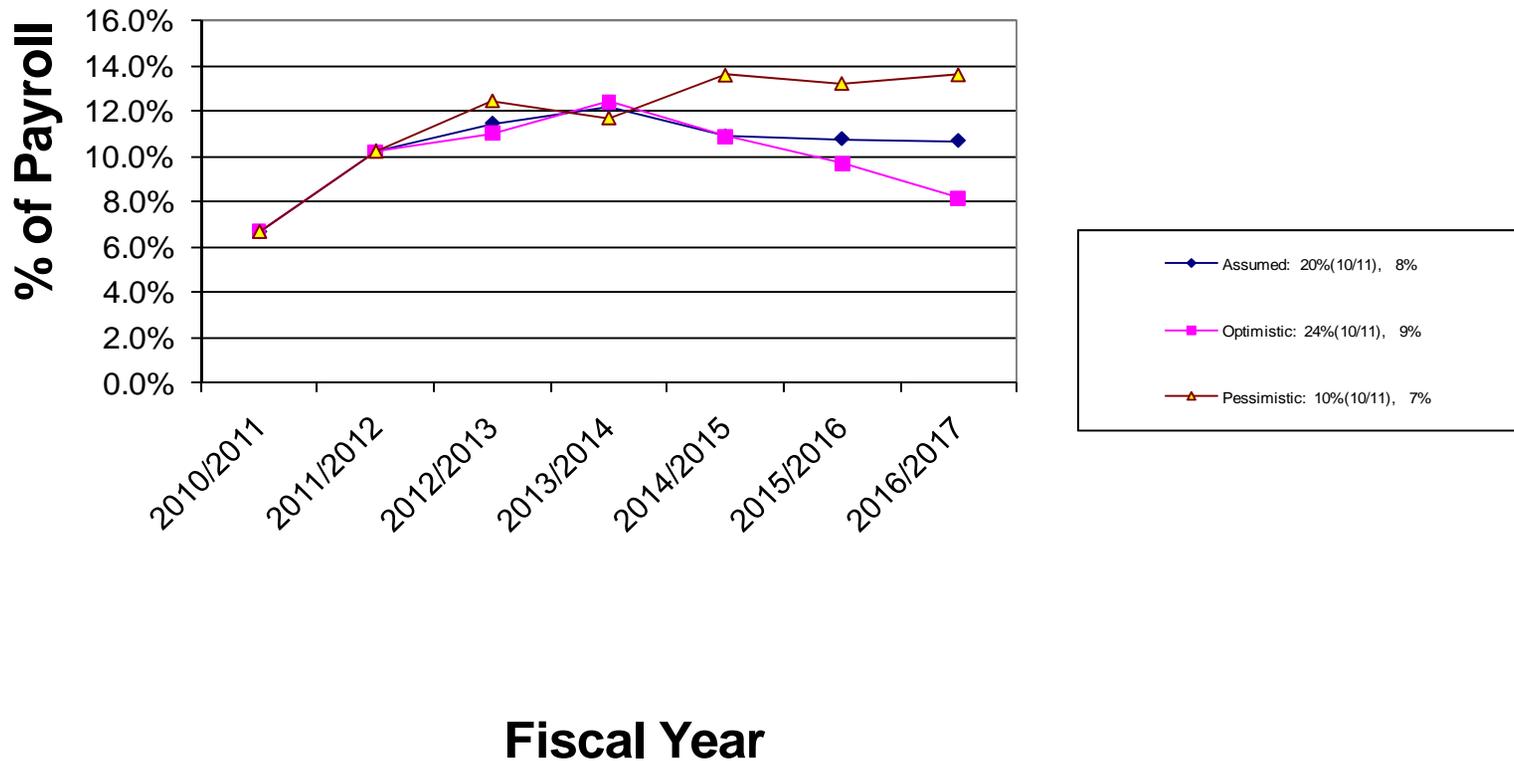


Table E1 - Member Contribution Rates (Before and After Surplus Allocation)							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Assumed: 20%(10/11), 8%							
Basic Rate	5.03%	5.53%	5.44%	5.39%	5.35%	5.33%	5.29%
COL Rate, Before Surplus Offset	2.61%	2.50%	2.55%	2.52%	2.49%	2.46%	2.43%
Surplus Offset	-2.61%	-2.50%	-1.16%	0.00%	0.00%	0.00%	0.00%
Net Rate, After Surplus Offset	5.03%	5.53%	6.83%	7.91%	7.84%	7.78%	7.73%
Optimistic: 24%(10/11), 9%							
Basic Rate	5.03%	5.53%	5.44%	5.39%	5.35%	5.33%	5.29%
COL Rate, Before Surplus Offset	2.61%	2.50%	2.55%	2.52%	2.49%	2.46%	2.43%
Surplus Offset	-2.61%	-2.50%	-1.36%	0.00%	0.00%	-0.51%	-1.45%
Net Rate, After Surplus Offset	5.03%	5.53%	6.63%	7.91%	7.84%	7.27%	6.28%
Pessimistic: 10%(10/11), 7%							
Basic Rate	5.03%	5.53%	5.44%	5.39%	5.35%	5.33%	5.29%
COL Rate, Before Surplus Offset	2.61%	2.50%	2.55%	2.52%	2.49%	2.46%	2.43%
Surplus Offset	-2.61%	-2.50%	-0.69%	0.00%	0.00%	0.00%	0.00%
Net Rate, After Surplus Offset	5.03%	5.53%	7.30%	7.91%	7.84%	7.78%	7.73%

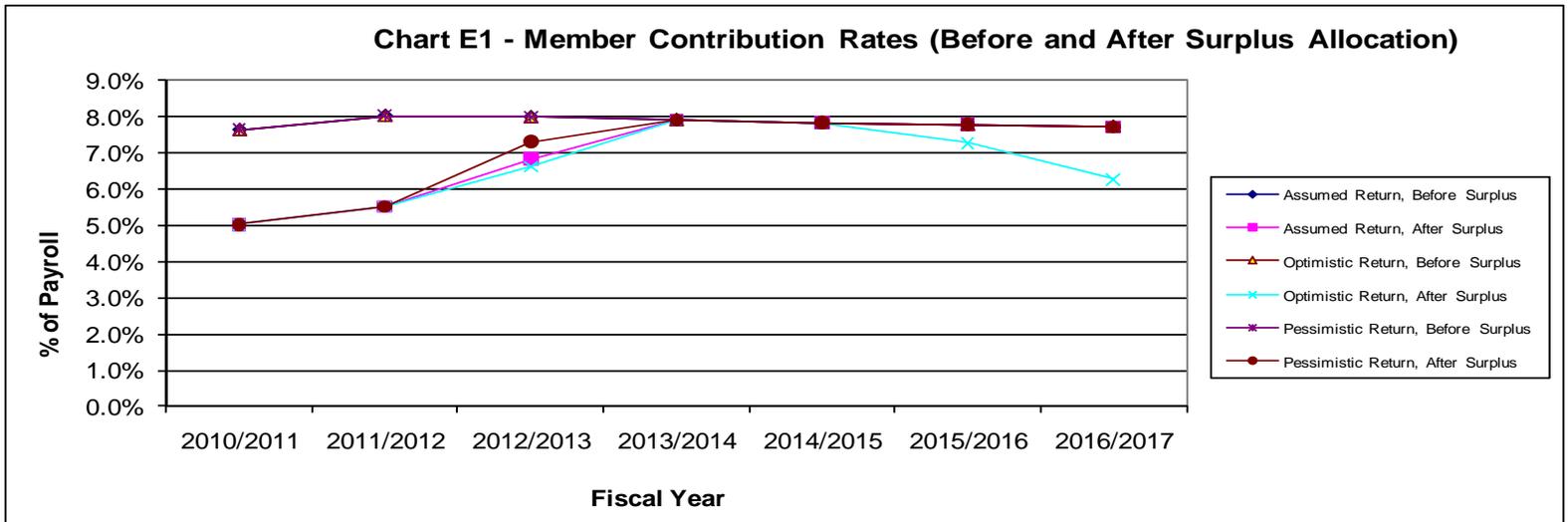
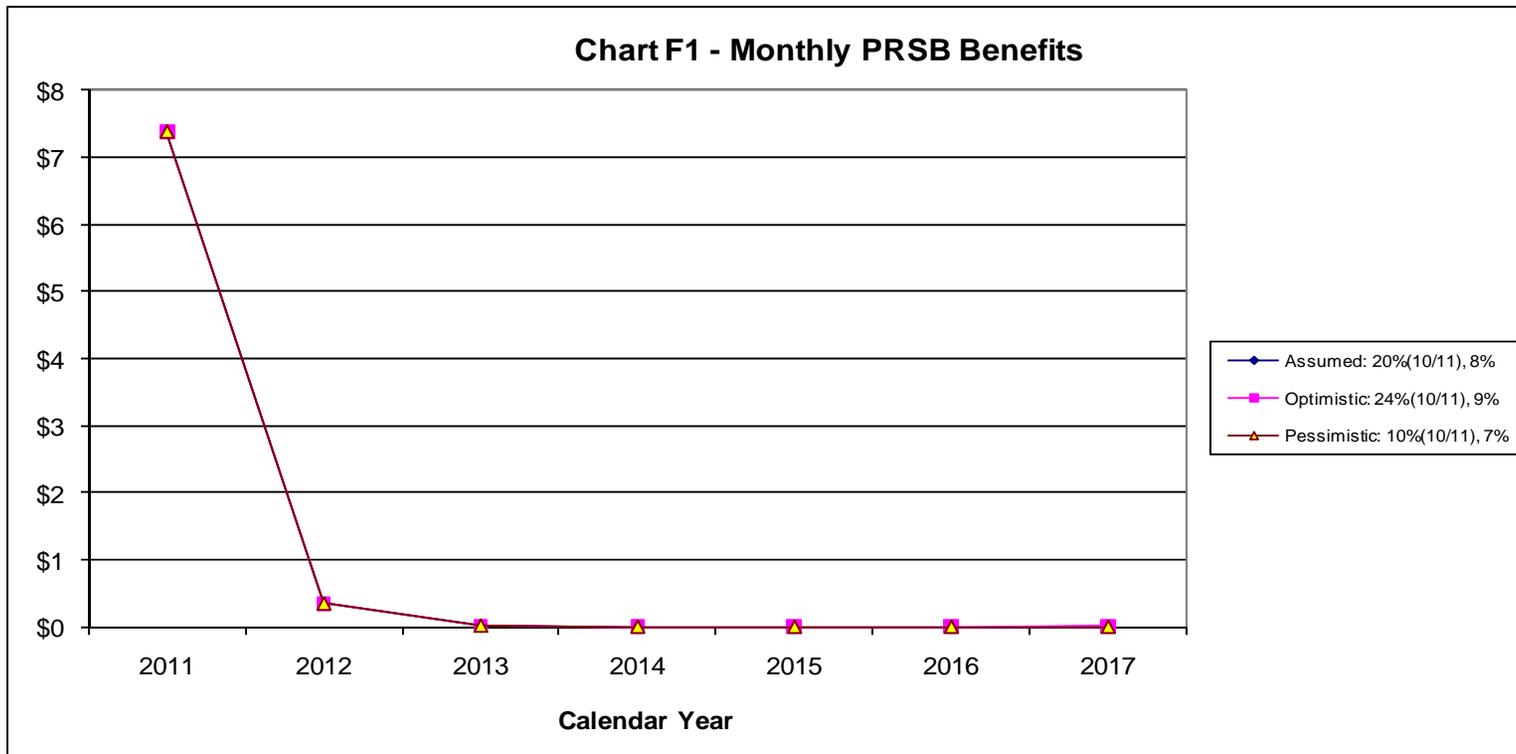


Table F1 - Monthly PRSB Benefits							
	Calendar Year						
	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Assumed: 20%(10/11), 8%							
Monthly Benefit	\$7	\$0	\$0	\$0	\$0	\$0	\$0
Eligible PRSB Recipients	1,444	1,544	1,646	1,742	1,834	1,919	1,999
Optimistic: 24%(10/11), 9%							
Monthly Benefit	\$7	\$0	\$0	\$0	\$0	\$0	\$0
Eligible PRSB Recipients	1,444	1,544	1,646	1,742	1,834	1,919	1,999
Pessimistic: 10%(10/11), 7%							
Monthly Benefit	\$7	\$0	\$0	\$0	\$0	\$0	\$0
Eligible PRSB Recipients	1,444	1,544	1,646	1,742	1,834	1,919	1,999



ATTACHMENT 2

SUMMARY OF RESULTS USING APPROACH #2 – EMPLOYEE POPULATION REDUCTION BASED ON CITY PROJECTIONS, USING FIVE-YEAR SMOOTHED ACTUARIAL VALUE OF ASSETS IN DETERMINING AVAILABLE SURPLUS

The following are points of note about the Tables:

- Table A2 – Projected Funding Ratios
- Table B2 – Distributable Surplus (Separated into City and PRSB portions)
- Table C2 – Employer Contribution Rates, Before surplus allocation
- Table D2 – Employer Contribution Rates, After surplus allocation
- Table E2 – Member Contribution Rates (Before and after surplus allocation)
- Table F2 – Monthly PRSB Benefit

Table A2 - Projected Funded Ratios	Valuation Date						
	06/30/2010	06/30/2011	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016
Assumed: 20%(10/11), 8%	122.5%	115.5%	107.8%	104.8%	108.1%	110.1%	110.0%
Optimistic: 24%(10/11), 9%	122.5%	116.3%	109.8%	108.3%	113.3%	117.1%	118.1%
Pessimistic: 10%(10/11), 7%	122.5%	113.5%	103.1%	97.3%	97.6%	96.9%	95.5%

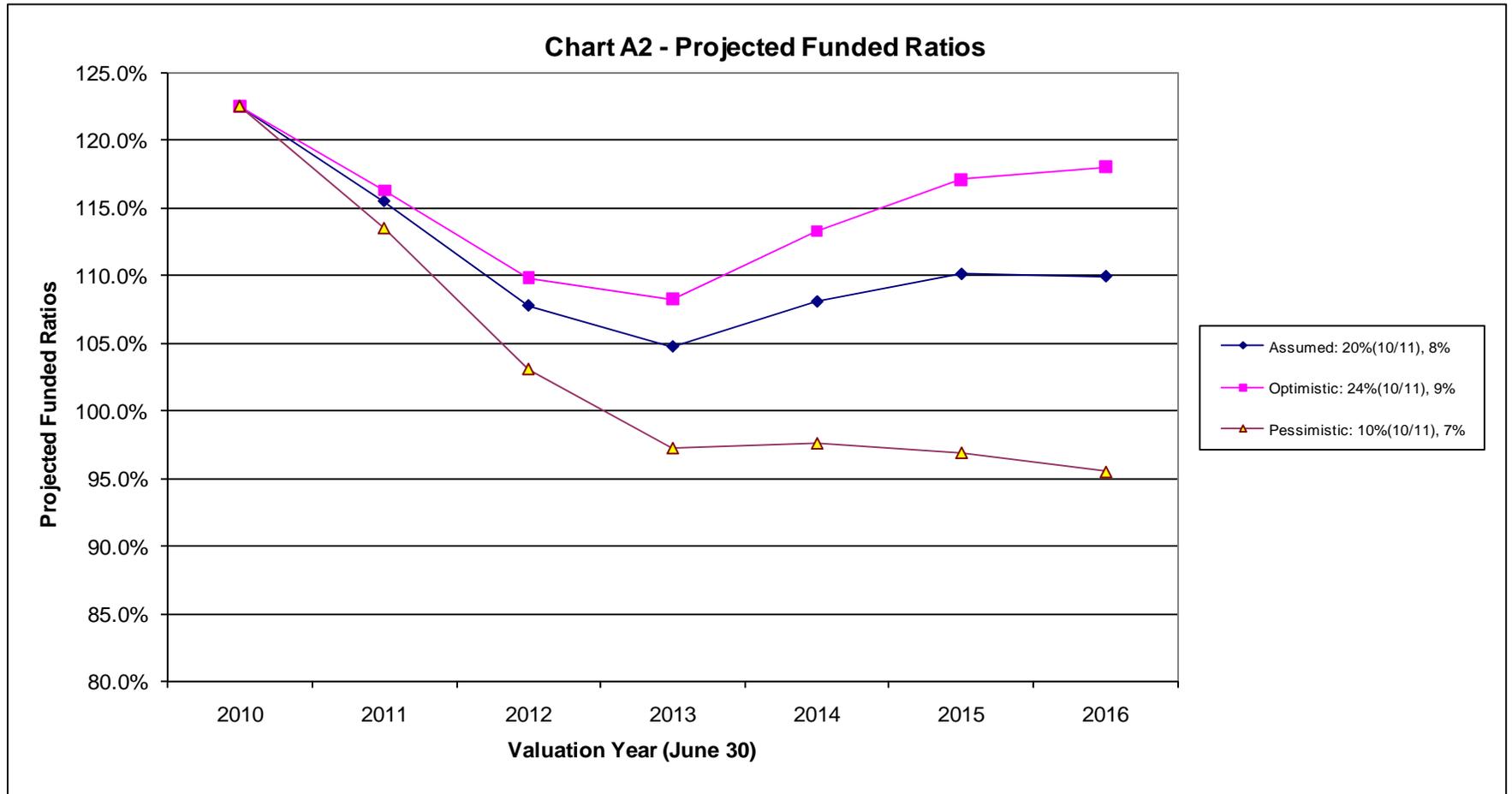


Table B2 - Distributable Surplus (\$000)							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Assumed: 20%(10/11), 8%							
Used in Settling <u>Actual</u> Employer Surplus for Current Fiscal Year							
Member COLA Contribution Offset	\$3,780	\$1,945	\$0	\$0	\$0	\$58	\$0
PRSB Allocation	\$293	\$0	\$0	\$0	\$0	\$0	\$0
City COLA Contribution Offset	\$3,780	\$1,945	\$0	\$0	\$0	\$58	\$0
Additional City Allocation	\$587	\$1	\$0	\$0	\$0	\$0	\$0
Used in <u>Projecting</u> Employer Surplus for Next Fiscal Year							
City COLA Contribution Offset	\$3,412	\$1,802	\$0	\$0	\$0	\$57	\$0
Additional City Allocation	\$558	\$1	\$0	\$0	\$0	\$0	\$0
Optimistic: 24%(10/11), 9%							
Used in Settling <u>Actual</u> Employer Surplus for Current Fiscal Year							
Member COLA Contribution Offset	\$3,780	\$2,228	\$0	\$0	\$1,345	\$3,020	\$3,219
PRSB Allocation	\$293	\$0	\$0	\$0	\$0	\$0	\$223
City COLA Contribution Offset	\$3,780	\$2,228	\$0	\$0	\$1,345	\$3,020	\$3,219
Additional City Allocation	\$587	\$1	\$0	\$0	\$0	\$0	\$445
Used in <u>Projecting</u> Employer Surplus for Next Fiscal Year							
City COLA Contribution Offset	\$3,412	\$2,085	\$0	\$0	\$1,328	\$2,981	\$3,111
Additional City Allocation	\$558	\$0	\$0	\$0	\$0	\$0	\$528
Pessimistic: 10%(10/11), 7%							
Used in Settling <u>Actual</u> Employer Surplus for Current Fiscal Year							
Member COLA Contribution Offset	\$3,780	\$1,238	\$0	\$0	\$0	\$0	\$0
PRSB Allocation	\$293	\$0	\$0	\$0	\$0	\$0	\$0
City COLA Contribution Offset	\$3,780	\$1,238	\$0	\$0	\$0	\$0	\$0
Additional City Allocation	\$587	\$0	\$0	\$0	\$0	\$0	\$0
Used in <u>Projecting</u> Employer Surplus for Next Fiscal Year							
City COLA Contribution Offset	\$3,412	\$1,117	\$0	\$0	\$0	\$0	\$0
Additional City Allocation	\$558	\$1	\$0	\$0	\$0	\$0	\$0

Table C2 - Employer Contribution Rates (Before Surplus Allocation)							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Assumed: 20%(10/11), 8%	11.09%	10.70%	11.00%	10.96%	11.20%	11.17%	11.16%
Optimistic: 24%(10/11), 9%	11.09%	10.70%	11.00%	10.96%	11.20%	11.17%	11.16%
Pessimistic: 10%(10/11), 7%	11.09%	10.70%	11.00%	10.96%	13.50%	13.24%	13.94%

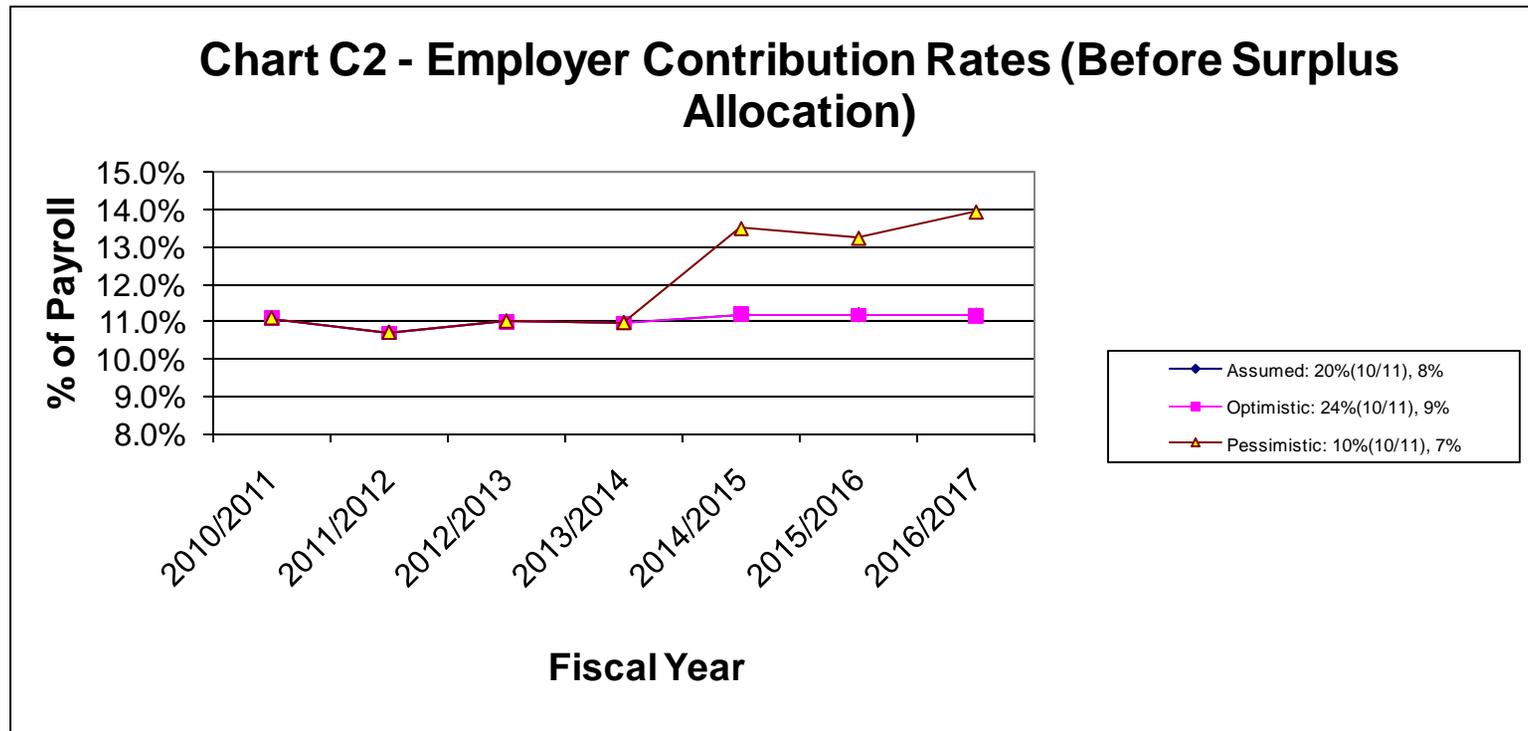


Table D2 - Employer Contribution Rates (After Surplus Allocation) (\$000)							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Assumed: 20%(10/11), 8%							
Used in Settling <u>Actual</u> Employer Contributions for Current Fiscal Year							
Employer Contribution Before Offset*	\$14,553	\$14,748	\$14,559	\$14,145	\$14,599	\$14,706	\$14,840
City COLA Contribution Offset*	-\$3,780	-\$1,945	\$0	\$0	\$0	-\$58	\$0
Additional City Allocation*	-\$587	-\$1	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (Prior Years)*	\$1,622	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$11,808	\$12,803	\$14,559	\$14,145	\$14,599	\$14,648	\$14,840
Actual City Contributions Based on Contribution Rate Calculated in Prior Year	-\$8,753	-\$14,087	-\$14,652	-\$16,016	-\$14,873	-\$14,785	-\$14,733
Application of Prepaid Employer Contributions	\$0	\$3,309	\$2,136	\$2,216	\$431	\$179	\$48
Contributions After Applying Prepaid Employer Contributions**	\$3,056	\$2,025	\$2,043	\$345	\$157	\$42	\$154
Balance in Employer Surplus Reserve Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance in Prepaid Employer Contributions	-\$3,182	-\$2,106	-\$2,125	-\$358	-\$164	-\$43	-\$160
Payroll	\$131,224	\$137,836	\$132,357	\$129,061	\$130,351	\$131,655	\$132,971
Used in <u>Projecting</u> Employer Contributions for Next Fiscal Year							
Employer Contribution Before Offset	\$14,603	\$15,487	\$14,877	\$14,946	\$15,058	\$15,186	\$14,880
City COLA Contribution Offset	-\$3,412	-\$1,802	\$0	\$0	\$0	-\$57	\$0
Additional City Allocation	-\$558	-\$1	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (Prior Years)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$10,632	\$13,685	\$14,877	\$14,946	\$15,058	\$15,129	\$14,880
Contributions After Applying Prepaid Employer Contributions**	\$13,941	\$15,875	\$17,087	\$15,319	\$15,228	\$15,174	\$15,046
Contributions After Applying Prepaid Employer Contributions (% of pay)**	10.2%	11.1%	12.4%	11.4%	11.2%	11.1%	10.9%
Payroll (Projected)	\$136,473	\$143,350	\$137,651	\$134,223	\$135,565	\$136,921	\$138,290

*Normal cost only.

**Normal cost plus UAAL (if any).

Table D2 - Employer Contribution Rates (After Surplus Allocation) (\$000) (Cont'd)							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Optimistic: 24%(10/11), 9%							
Used in Settling <u>Actual</u> Employer Contributions for Current Fiscal Year							
Employer Contribution Before Offset*	\$14,553	\$14,748	\$14,559	\$14,145	\$14,599	\$14,706	\$14,840
City COLA Contribution Offset*	-\$3,780	-\$2,228	\$0	\$0	-\$1,345	-\$3,020	-\$3,219
Additional City Allocation*	-\$587	-\$1	\$0	\$0	\$0	\$0	-\$445
City Surplus Reserve Account (Prior Years)*	\$1,622	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$11,808	\$12,520	\$14,559	\$14,145	\$13,254	\$11,686	\$11,176
Actual City Contributions Based on Contribution Rate Calculated in Prior Year	-\$8,753	-\$14,087	-\$14,109	-\$16,262	-\$14,847	-\$12,086	-\$10,093
Application of Prepaid Employer Contributions	\$0	\$3,309	\$1,829	\$2,435	\$1,593	\$400	-\$1,083
Contributions After Applying Prepaid Employer Contributions**	\$3,056	\$1,742	\$2,280	\$319	\$0	\$0	\$0
Balance in Employer Surplus Reserve Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance in Prepaid Employer Contributions	-\$3,182	-\$1,812	-\$2,371	-\$331	\$1,230	\$1,738	\$839
Payroll	\$131,224	\$137,836	\$132,357	\$129,061	\$130,351	\$131,655	\$132,971
Used in <u>Projecting</u> Employer Contributions for Next Fiscal Year							
Employer Contribution Before Offset	\$14,603	\$15,487	\$14,877	\$14,946	\$15,058	\$15,186	\$14,880
City COLA Contribution Offset	-\$3,412	-\$2,085	\$0	\$0	-\$1,328	-\$2,981	-\$3,111
Additional City Allocation	-\$558	\$0	\$0	\$0	\$0	\$0	-\$528
City Surplus Reserve Account (Prior Years)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$10,632	\$13,402	\$14,877	\$14,946	\$13,730	\$12,205	\$11,241
Contributions After Applying Prepaid Employer Contributions**	\$13,941	\$15,286	\$17,343	\$15,291	\$12,451	\$10,397	\$10,368
Contributions After Applying Prepaid Employer Contributions (% of pay)**	10.2%	10.7%	12.6%	11.4%	9.2%	7.6%	7.5%
Payroll (Projected)	\$136,473	\$143,350	\$137,651	\$134,223	\$135,565	\$136,921	\$138,290

*Normal cost only.

**Normal cost plus UAAL (if any).

Table D2 - Employer Contribution Rates (After Surplus Allocation) (\$000) (Cont'd)							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Pessimistic: 10%(10/11), 7%							
Used in Settling <u>Actual</u> Employer Contributions for Current Fiscal Year							
Employer Contribution Before Offset*	\$14,553	\$14,748	\$14,559	\$14,145	\$14,599	\$14,706	\$14,840
City COLA Contribution Offset*	-\$3,780	-\$1,238	\$0	\$0	\$0	\$0	\$0
Additional City Allocation*	-\$587	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (Prior Years)*	\$1,622	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$11,808	\$13,510	\$14,559	\$14,145	\$14,599	\$14,706	\$14,840
Actual City Contributions Based on Contribution Rate Calculated in Prior Year	-\$8,753	-\$14,087	-\$16,002	-\$15,423	-\$14,938	-\$14,759	-\$14,853
Application of Prepaid Employer Contributions	\$0	\$3,309	\$2,901	\$1,675	\$469	\$151	\$108
Contributions After Applying Prepaid Employer Contributions**	\$3,056	\$2,733	\$1,458	\$397	\$3,126	\$2,820	\$3,797
Balance in Employer Surplus Reserve Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance in Prepaid Employer Contributions	-\$3,182	-\$2,842	-\$1,517	-\$413	-\$135	-\$103	-\$99
Payroll	\$131,224	\$137,836	\$132,357	\$129,061	\$130,351	\$131,655	\$132,971
Used in <u>Projecting</u> Employer Contributions for Next Fiscal Year							
Employer Contribution Before Offset	\$14,603	\$15,487	\$14,877	\$14,946	\$15,058	\$15,186	\$14,880
City COLA Contribution Offset	-\$3,412	-\$1,117	\$0	\$0	\$0	\$0	\$0
Additional City Allocation	-\$558	-\$1	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (Prior Years)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$10,632	\$14,370	\$14,877	\$14,946	\$15,058	\$15,186	\$14,880
Contributions After Applying Prepaid Employer Contributions**	\$13,941	\$17,326	\$16,455	\$18,460	\$18,001	\$19,104	\$20,953
Contributions After Applying Prepaid Employer Contributions (% of pay)**	10.2%	12.1%	12.0%	13.8%	13.3%	14.0%	15.2%
Payroll (Projected)	\$136,473	\$143,350	\$137,651	\$134,223	\$135,565	\$136,921	\$138,290

*Normal cost only.

**Normal cost plus UAAL (if any).

Chart D2 - Employer Contribution Rates (After Surplus Allocation)

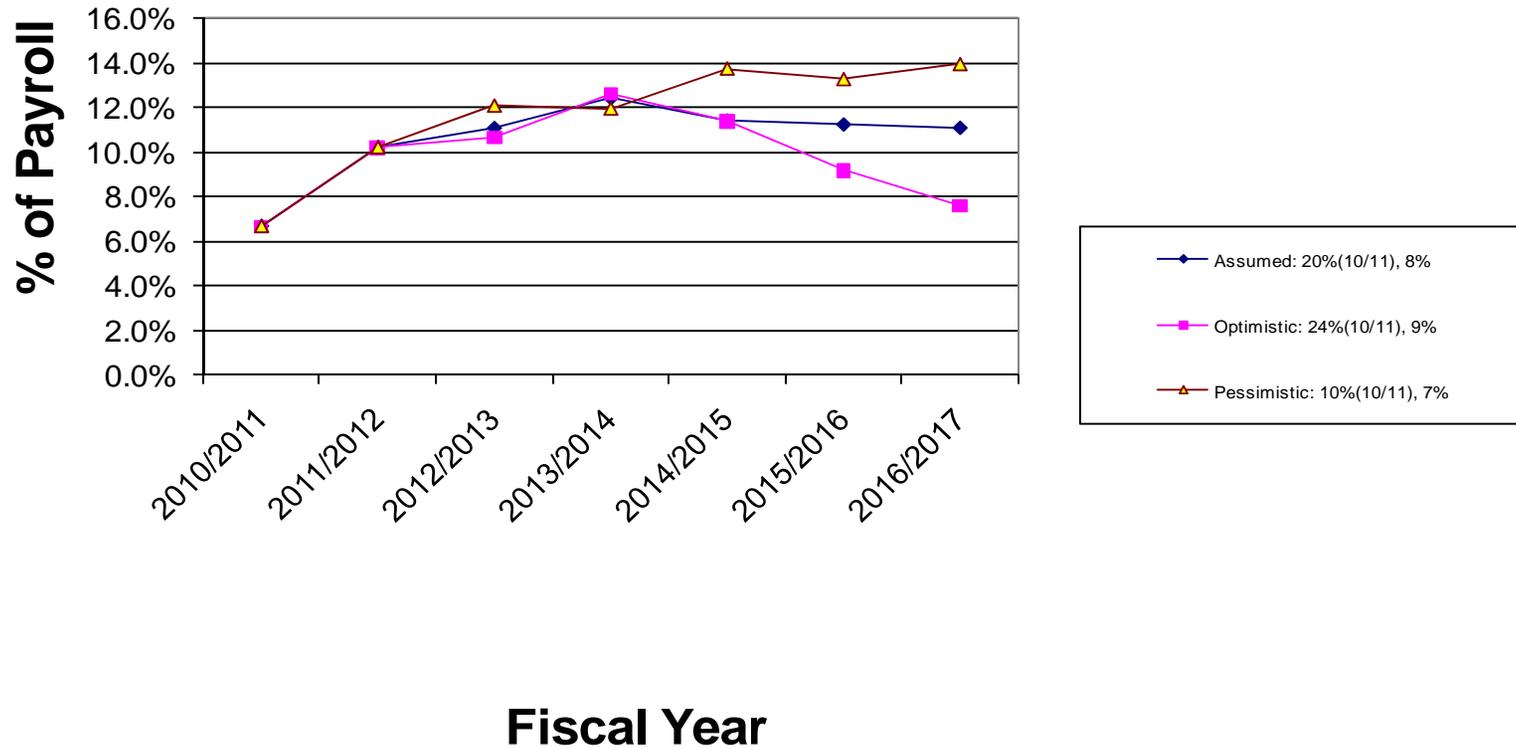


Table E2 - Member Contribution Rates (Before and After Surplus Allocation)							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Assumed: 20%(10/11), 8%							
Basic Rate	5.03%	5.53%	5.29%	5.05%	4.95%	4.88%	4.79%
COL Rate, Before Surplus Offset	2.61%	2.50%	2.54%	2.46%	2.48%	2.45%	2.42%
Surplus Offset	-2.61%	-2.50%	-1.26%	0.00%	0.00%	0.00%	-0.04%
Net Rate, After Surplus Offset	5.03%	5.53%	6.57%	7.51%	7.43%	7.32%	7.17%
Optimistic: 24%(10/11), 9%							
Basic Rate	5.03%	5.53%	5.29%	5.05%	4.95%	4.88%	4.79%
COL Rate, Before Surplus Offset	2.61%	2.50%	2.54%	2.46%	2.48%	2.45%	2.42%
Surplus Offset	-2.61%	-2.50%	-1.45%	0.00%	0.00%	-0.98%	-2.18%
Net Rate, After Surplus Offset	5.03%	5.53%	6.37%	7.51%	7.43%	6.34%	5.03%
Pessimistic: 10%(10/11), 7%							
Basic Rate	5.03%	5.53%	5.29%	5.05%	4.95%	4.88%	4.79%
COL Rate, Before Surplus Offset	2.61%	2.50%	2.54%	2.46%	2.48%	2.45%	2.42%
Surplus Offset	-2.61%	-2.50%	-0.78%	0.00%	0.00%	0.00%	0.00%
Net Rate, After Surplus Offset	5.03%	5.53%	7.04%	7.51%	7.43%	7.32%	7.21%

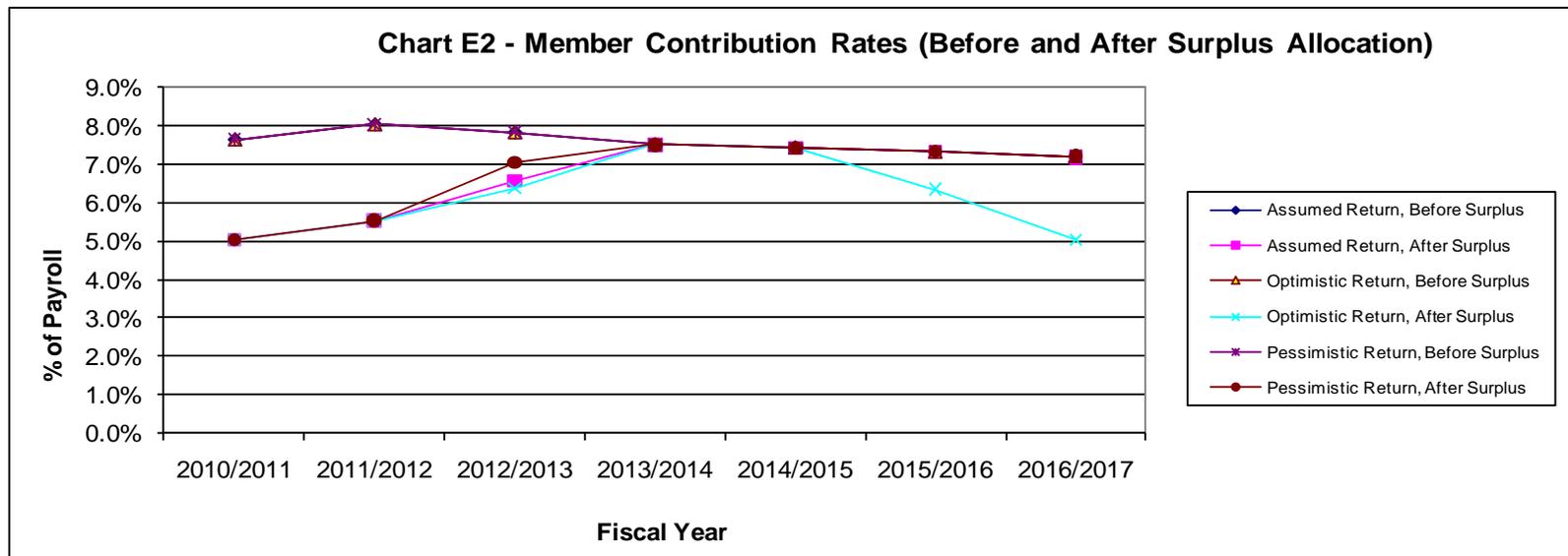
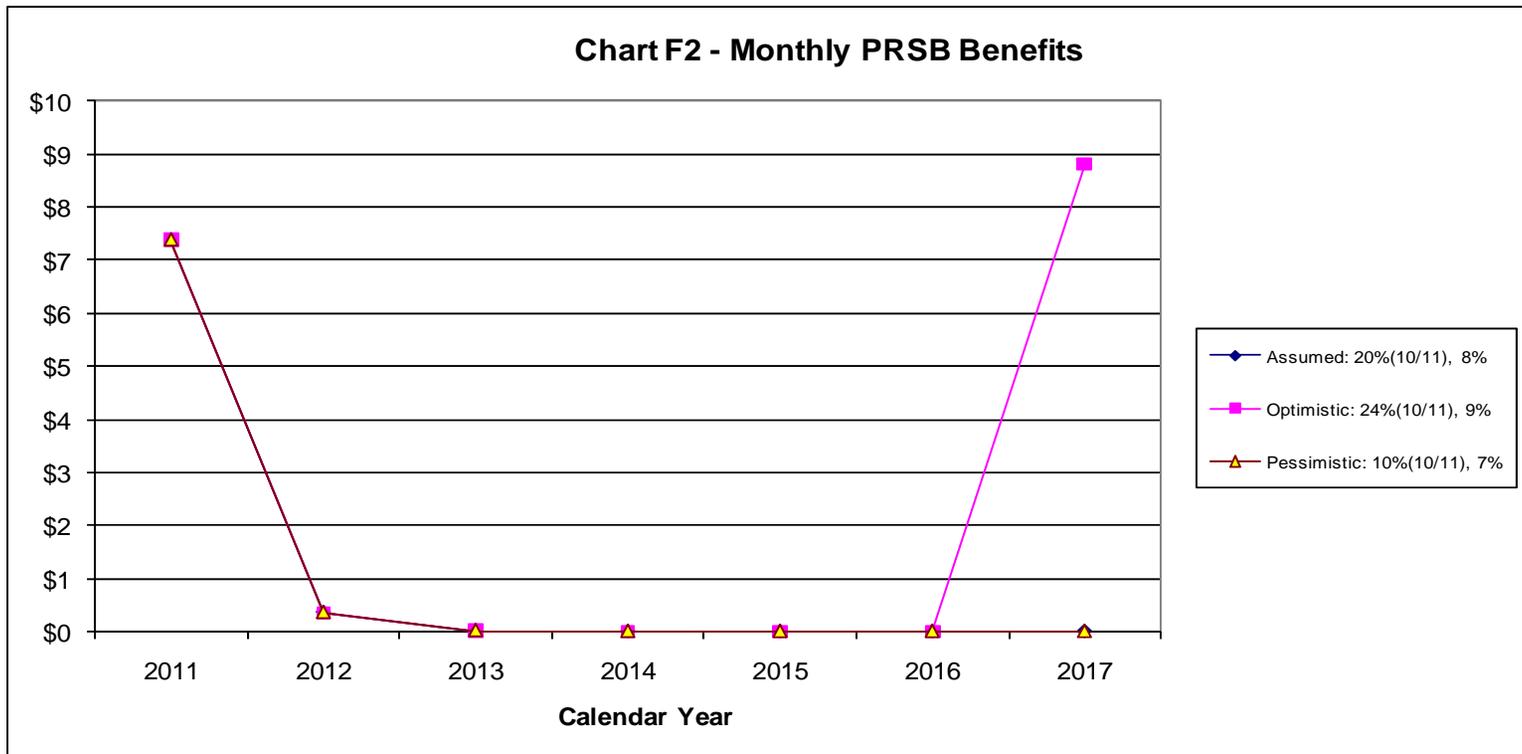


Table F2 - Monthly PRSB Benefits							
	Calendar Year						
	2011	2012	2013	2014	2015	2016	2017
Assumed: 20%(10/11), 8%							
Monthly Benefit	\$7	\$0	\$0	\$0	\$0	\$0	\$0
Eligible PRSB Recipients	1,444	1,544	1,646	1,742	1,834	1,919	1,999
Optimistic: 24%(10/11), 9%							
Monthly Benefit	\$7	\$0	\$0	\$0	\$0	\$0	\$9
Eligible PRSB Recipients	1,444	1,544	1,646	1,742	1,834	1,919	1,999
Pessimistic: 10%(10/11), 7%							
Monthly Benefit	\$7	\$0	\$0	\$0	\$0	\$0	\$0
Eligible PRSB Recipients	1,444	1,544	1,646	1,742	1,834	1,919	1,999



ATTACHMENT 3

Comparison of Employer Rates (% of Pay) After Surplus Allocation Under Approach #1 and Approach #2

	Fiscal Year						
	<u>2010/2011</u>	<u>2011/2012</u>	<u>2012/2013</u>	<u>2013/2014</u>	<u>2014/2015</u>	<u>2015/2016</u>	<u>2016/2017</u>
Approach #1							
Assumed: 20%(10/11), 8%	6.7%	10.2%	11.4%	12.2%	10.9%	10.8%	10.7%
Optimistic: 24%(10/11), 9%	6.7%	10.2%	11.0%	12.4%	10.9%	9.7%	8.2%
Pessimistic: 10%(10/11), 7%	6.7%	10.2%	12.4%	11.7%	13.6%	13.2%	13.6%
Approach #2							
Assumed: 20%(10/11), 8%	6.7%	10.2%	11.1%	12.4%	11.4%	11.2%	11.1%
Optimistic: 24%(10/11), 9%	6.7%	10.2%	10.7%	12.6%	11.4%	9.2%	7.6%
Pessimistic: 10%(10/11), 7%	6.7%	10.2%	12.1%	12.0%	13.8%	13.3%	14.0%