



THE SEGAL COMPANY

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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 Fire and Police 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.

The projections are also based on the following information provided by the Retirement Office and the City Budget Office.

## **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 30-year period. 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 – Monthly PRSB Benefit

The tables of results in Attachment 1 are labeled as A1 through E1 to reflect Approach #1. The tables in Attachment 2 are labeled as A2 through E2 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, 2010 valuation using the alternative market rates of return assumed in this study. If surplus were to be measured using market value of assets (MVA), the contribution rates for the first few years would be the same as those measured using AVA. 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.

	<b>Approach #1</b>	<b>Approach #2</b>
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 continues 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 AVA and MVA as of June 30, 2010 was 110.8% and 89.2%, respectively. After incorporating the investment losses prior to June 30, 2010, only the last of the three investment scenarios under Approach #1 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 16/17
Projected Payroll After Reduction	\$98	\$101	\$96	\$96	\$99	\$101	Payroll increased by 4%*

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

We have assumed in this study that the above active workforce and associated payroll reductions as well as the effect of no or less than expected salary increases for the next few years 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 expected salary increases and 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:

<b>Assumed Entry Age</b>	<b>Annual Pay at Entry (in 2010 Dollars)</b>	<b>% Male and % Female</b>
29	\$66,000	90% Male and 10% 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 \$103 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 \$103 million would increase by another 4% to \$107 million. The \$107 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 \$107 million and the City's actual payroll for 2011/2012 (i.e., \$101 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 POLICIES FOR UNFUNDED ACTUARIAL ACCRUED LIABILITIES**

It is our understanding that under Section 3-324 of the Fresno Municipal Code, UAAL should be funded over a period of 30 years. For these projections, we have used a non-decreasing 30-year period to amortize the UAAL. 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. In particular, there will be "negative amortization" of the UAAL for several years as a result of using a 30-year amortization period because the contribution payment will be less than the interest accruing on the UAAL. 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 all Approaches, the System's funded ratio drops below 110% (the threshold for the distribution of actuarial surplus) after the June 30, 2010 valuation and below 100% in the June 30, 2012 or June 30, 2013 valuation, except under the Optimistic investment scenario. That means no surplus will be available for distribution in the June 30, 2011 valuation and an UAAL rate may have to be paid soon after.
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, 2010 valuation. However, there will be surplus available for distribution again in the June 30, 2015 valuation under the optimistic scenario of Approach #2 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 expected to increase to about 22% under Approach #1 and 24% under Approach #2 so an employer rate in excess of these rates 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 we have assumed fewer Tier 2 new hires under Approach #2 when compared to Approach #1. Since the employer normal cost rate is calculated as an average rate weighted by the Tier 1 and Tier 2 projected payroll and the proportion of the Tier 1 payroll to the total payroll is greater under Approach #2, the weighted average normal cost rate is higher under Approach #2 when compared to Approach #1.
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 22% - 24% 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 21% - 24% and 22% - 29% of payroll, respectively.
5. Monthly PRSB Benefits (Tables E1 and E2 and Charts E1 and E2) – 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.

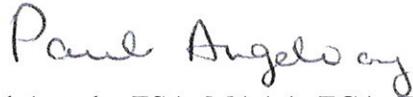
We have also applied the current asset smoothing policy of five-year smoothing with no "corridor" requirement to constrain the AVA to be within a set percentage of the MVA. We believe that this policy of five-year smoothing with no MVA corridor complies with the applicable actuarial standards of practice.

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.

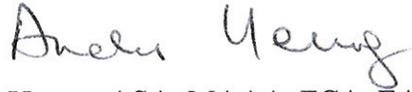
Mr. Stanley L. McDivitt  
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Please let us know if you have any questions.

Sincerely,



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



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

SUV/bqb  
Enclosures

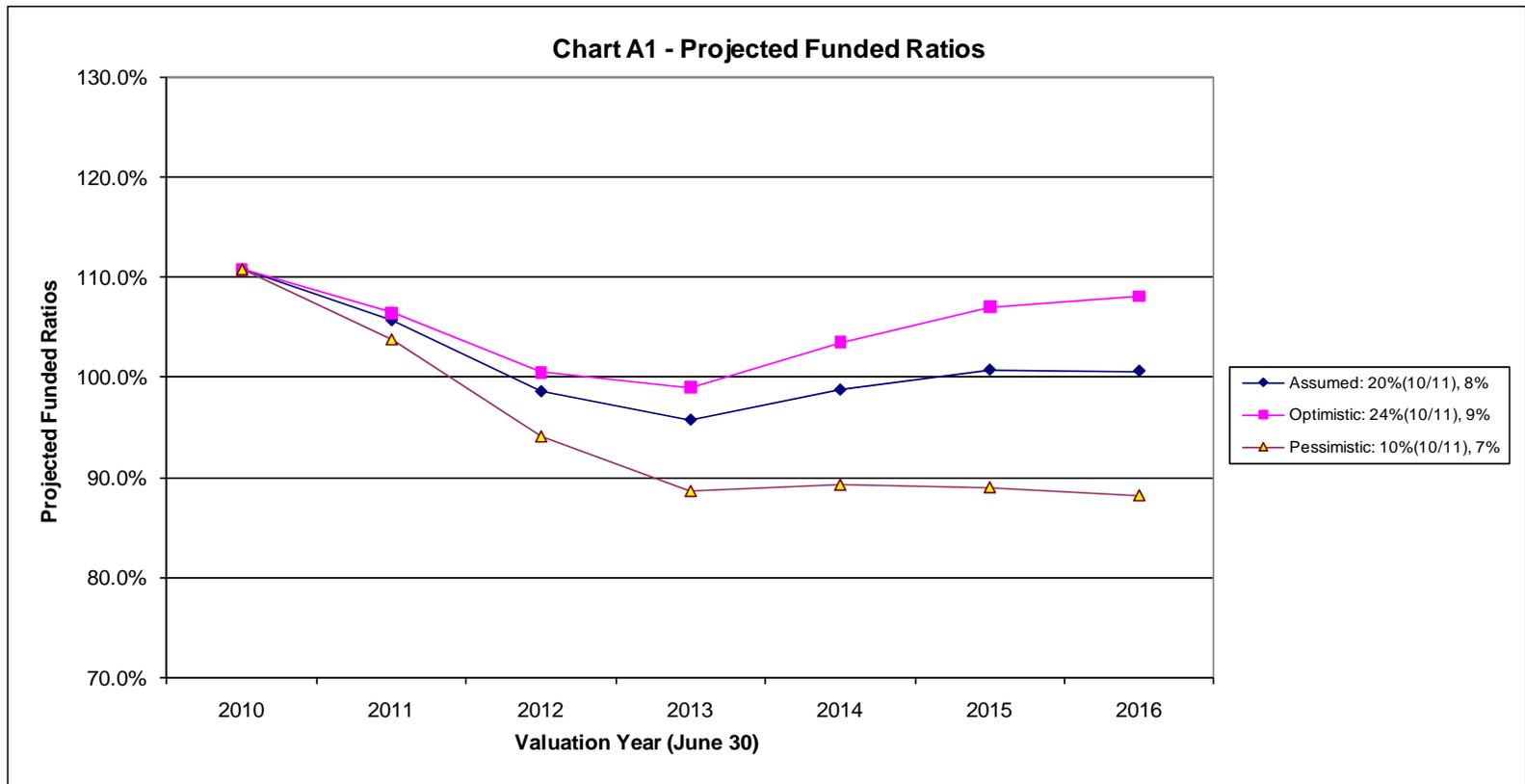
## ATTACHMENT 1

### **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:

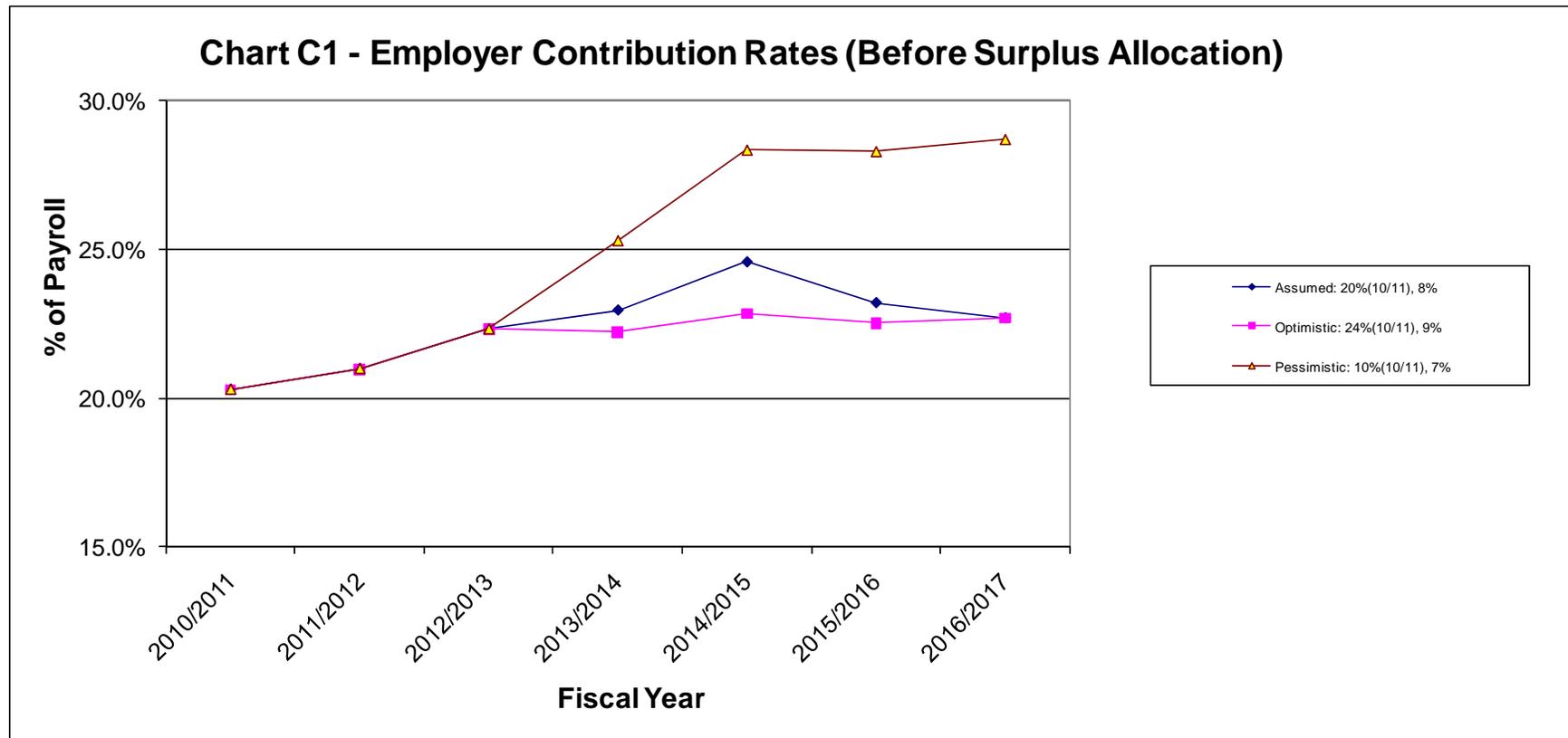
- Table A1 – Projected Funding Ratios
- Table B1 – Distributable Surplus (Separated into City and PRSB portions)
- Table C1 – Employer Contribution Rates, Before surplus allocation
- Table D1 – Employer Contribution Rates, After surplus allocation
- Table E1 – Monthly PRSB Benefit

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%	110.8%	105.7%	98.6%	95.7%	98.7%	100.7%	100.6%
Optimistic: 24%(10/11), 9%	110.8%	106.5%	100.5%	99.0%	103.5%	107.0%	108.1%
Pessimistic: 10%(10/11), 7%	110.8%	103.8%	94.1%	88.6%	89.3%	89.0%	88.2%



<b>Table B1 - Distributable Surplus (\$000)</b>							
	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>
<b>Assumed: 20%(10/11), 8%</b>							
<b>Used in Settling <u>Actual</u> Employer Surplus, Current Fiscal Year</b>							
City Allocation	\$440	\$0	\$0	\$0	\$0	\$0	\$0
PRSB Allocation	\$220	\$0	\$0	\$0	\$0	\$0	\$0
<b>Used in <u>Projecting</u> Employer Surplus, Next Fiscal Year</b>							
City Allocation	\$401	\$0	\$0	\$0	\$0	\$0	\$0
<b>Optimistic: 24%(10/11), 9%</b>							
<b>Used in Settling <u>Actual</u> Employer Surplus, Current Fiscal Year</b>							
City Allocation	\$440	\$0	\$0	\$0	\$0	\$0	\$0
PRSB Allocation	\$220	\$0	\$0	\$0	\$0	\$0	\$0
<b>Used in <u>Projecting</u> Employer Surplus, Next Fiscal Year</b>							
City Allocation	\$401	\$0	\$0	\$0	\$0	\$0	\$0
<b>Pessimistic: 10%(10/11), 7%</b>							
<b>Used in Settling <u>Actual</u> Employer Surplus, Current Fiscal Year</b>							
City Allocation	\$440	\$0	\$0	\$0	\$0	\$0	\$0
PRSB Allocation	\$220	\$0	\$0	\$0	\$0	\$0	\$0
<b>Used in <u>Projecting</u> Employer Surplus, Next Fiscal Year</b>							
City Allocation	\$401	\$0	\$0	\$0	\$0	\$0	\$0

	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Assumed: 20%(10/11), 8%	20.28%	20.98%	22.32%	22.96%	24.59%	23.21%	22.70%
Optimistic: 24%(10/11), 9%	20.28%	20.98%	22.32%	22.22%	22.84%	22.53%	22.70%
Pessimistic: 10%(10/11), 7%	20.28%	20.98%	22.32%	25.30%	28.36%	28.31%	28.72%



<b>Table D1 - Employer Contribution Rates (After Surplus Allocation) (\$000)</b>							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
<b>Assumed: 20%(10/11), 8%</b>							
<b>Used in Settling Actual Employer Surplus, Current Fiscal Year</b>							
Employer Contribution Before Offset*	\$20,529	\$22,165	\$24,982	\$25,824	\$27,297	\$28,676	\$30,042
City Contribution Offset*	-\$440	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (From Prior Years)*	\$3,585	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$23,674	\$22,165	\$24,982	\$25,824	\$27,297	\$28,676	\$30,042
Actual City Contributions Based on Contribution Rate Calculated in the Prior Year	-\$20,383	-\$25,572	-\$25,204	-\$25,894	-\$27,229	-\$28,690	-\$30,062
Application of Prepaid Employer Contributions	\$0	\$3,563	\$222	\$70	-\$68	\$14	\$20
Total Contributions After Applying Prepaid Employer Contributions**	\$3,291	\$157	\$0	\$865	\$2,784	\$869	\$0
Balance in Employer Surplus Reserve Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance in Prepaid Employer Contributions	-\$3,426	-\$163	\$54	\$132	\$72	\$92	\$120
Payroll	\$102,686	\$106,817	\$112,218	\$116,850	\$122,653	\$127,738	\$132,901
<b>Used in Projecting Employer Surplus, Next Fiscal Year</b>							
Employer Contribution Before Offset	\$22,404	\$24,784	\$25,918	\$27,120	\$28,723	\$30,143	\$31,595
City Contribution Offset	-\$401	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (From Prior Years)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$22,003	\$24,784	\$25,918	\$27,120	\$28,723	\$30,143	\$31,595
Total Employer Contribution**	\$25,567	\$24,953	\$26,725	\$29,742	\$29,515	\$30,048	\$31,469
<b>Total Employer Contribution (% of pay)**</b>	<b>23.9%</b>	<b>22.5%</b>	<b>22.9%</b>	<b>24.5%</b>	<b>23.1%</b>	<b>22.6%</b>	<b>22.8%</b>
Payroll (Projected)	\$106,794	\$111,090	\$116,706	\$121,524	\$127,559	\$132,848	\$138,217

\*Normal cost only.

\*\*Normal cost plus UAAL (if any).

<b>Table D1 - Employer Contribution Rates (After Surplus Allocation) (\$000) (cont'd)</b>							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
<b>Optimistic: 24%(10/11), 9%</b>							
<b>Used in Settling Actual Employer Surplus, Current Fiscal Year</b>							
Employer Contribution Before Offset*	\$20,529	\$22,165	\$24,982	\$25,824	\$27,297	\$28,676	\$30,042
City Contribution Offset*	-\$440	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (From Prior Years)*	\$3,585	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$23,674	\$22,165	\$24,982	\$25,824	\$27,297	\$28,676	\$30,042
Actual City Contributions Based on Contribution Rate Calculated in the Prior Year	-\$20,383	-\$25,572	-\$25,204	-\$25,894	-\$27,229	-\$28,690	-\$30,062
Application of Prepaid Employer Contributions	\$0	\$3,563	\$222	\$70	-\$68	\$14	\$20
Total Contributions After Applying Prepaid Employer Contributions**	\$3,291	\$157	\$0	\$0	\$638	\$0	\$0
Balance in Employer Surplus Reserve Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance in Prepaid Employer Contributions	-\$3,426	-\$163	\$54	\$132	\$72	\$92	\$120
Payroll	\$102,686	\$106,817	\$112,218	\$116,850	\$122,653	\$127,738	\$132,901
<b>Used in Projecting Employer Surplus, Next Fiscal Year</b>							
Employer Contribution Before Offset	\$22,404	\$24,784	\$25,918	\$27,120	\$28,723	\$30,143	\$31,595
City Contribution Offset	-\$401	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (From Prior Years)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$22,003	\$24,784	\$25,918	\$27,120	\$28,723	\$30,143	\$31,595
Total Employer Contribution**	\$25,567	\$24,953	\$25,861	\$27,615	\$28,648	\$30,048	\$31,469
<b>Total Employer Contribution (% of pay)**</b>	<b>23.9%</b>	<b>22.5%</b>	<b>22.2%</b>	<b>22.7%</b>	<b>22.5%</b>	<b>22.6%</b>	<b>22.8%</b>
Payroll (Projected)	\$106,794	\$111,090	\$116,706	\$121,524	\$127,559	\$132,848	\$138,217

\*Normal cost only.

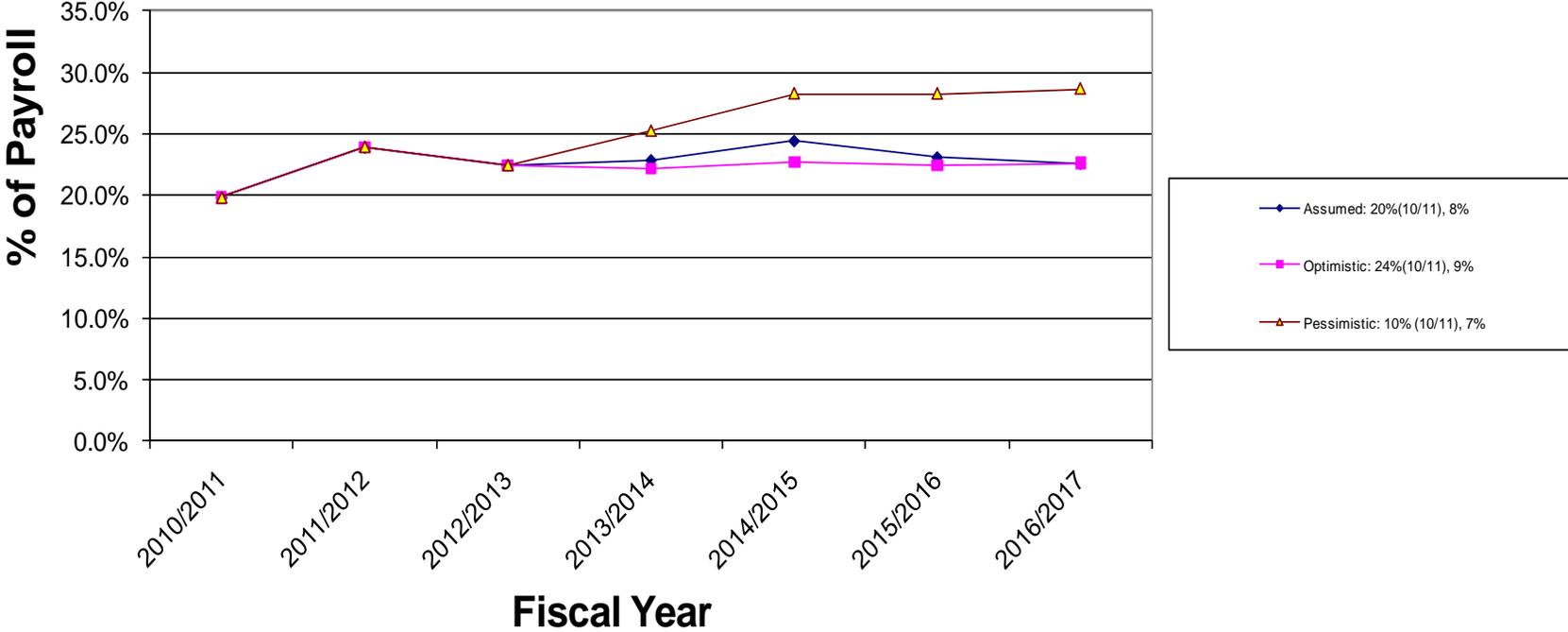
\*\*Normal cost plus UAAL (if any).

<b>Table D1 - Employer Contribution Rates (After Surplus Allocation) (\$000) (cont'd)</b>							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
<b>Pessimistic: 10%(10/11), 7%</b>							
<b>Used in Settling Actual Employer Surplus, Current Fiscal Year</b>							
Employer Contribution Before Offset*	\$20,529	\$22,165	\$24,982	\$25,824	\$27,297	\$28,676	\$30,042
City Contribution Offset*	-\$440	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (From Prior Years)*	\$3,585	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$23,674	\$22,165	\$24,982	\$25,824	\$27,297	\$28,676	\$30,042
Actual City Contributions Based on Contribution Rate Calculated in the Prior Year	-\$20,383	-\$25,572	-\$25,204	-\$25,894	-\$27,229	-\$28,690	-\$30,062
Application of Prepaid Employer Contributions	\$0	\$3,563	\$222	\$70	-\$68	\$14	\$20
Total Contributions After Applying Prepaid Employer Contributions**	\$3,291	\$157	\$0	\$3,599	\$7,408	\$7,383	\$8,001
Balance in Employer Surplus Reserve Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance in Prepaid Employer Contributions	-\$3,426	-\$163	\$54	\$132	\$72	\$92	\$120
Payroll	\$102,686	\$106,817	\$112,218	\$116,850	\$122,653	\$127,738	\$132,901
<b>Used in Projecting Employer Surplus, Next Fiscal Year</b>							
Employer Contribution Before Offset	\$22,404	\$24,784	\$25,918	\$27,120	\$28,723	\$30,143	\$31,595
City Contribution Offset	-\$401	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (From Prior Years)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$22,003	\$24,784	\$25,918	\$27,120	\$28,723	\$30,143	\$31,595
Total Employer Contribution**	\$25,567	\$24,953	\$29,456	\$34,323	\$36,021	\$38,045	\$40,564
<b>Total Employer Contribution (% of pay)**</b>	<b>23.9%</b>	<b>22.5%</b>	<b>25.2%</b>	<b>28.2%</b>	<b>28.2%</b>	<b>28.6%</b>	<b>29.3%</b>
Payroll (Projected)	\$106,794	\$111,090	\$116,706	\$121,524	\$127,559	\$132,848	\$138,217

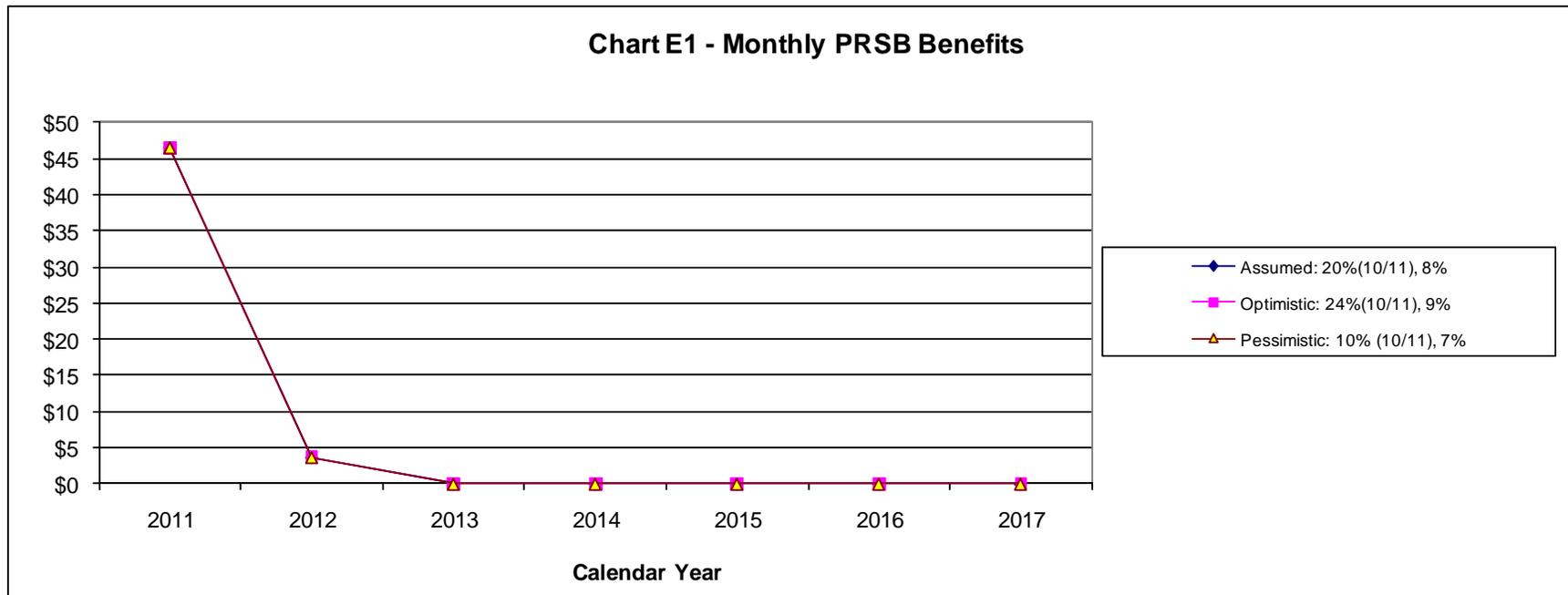
\*Normal cost only.

\*\*Normal cost plus UAAL (if any).

### Chart D1 - Employer Contribution Rates (After Surplus Allocation)



	Calendar Year						
	2011	2012	2013	2014	2015	2016	2017
<b>Assumed: 20%(10/11), 8%</b>							
Monthly Benefit	\$47	\$4	\$0	\$0	\$0	\$0	\$0
Eligible PRSB Recipients	959	995	1,019	1,042	1,064	1,090	1,114
<b>Optimistic: 24%(10/11), 9%</b>							
Monthly Benefit	\$47	\$4	\$0	\$0	\$0	\$0	\$0
Eligible PRSB Recipients	959	995	1,019	1,042	1,064	1,090	1,114
<b>Pessimistic: 10%(10/11), 7%</b>							
Monthly Benefit	\$47	\$4	\$0	\$0	\$0	\$0	\$0
Eligible PRSB Recipients	959	995	1,019	1,042	1,064	1,090	1,114



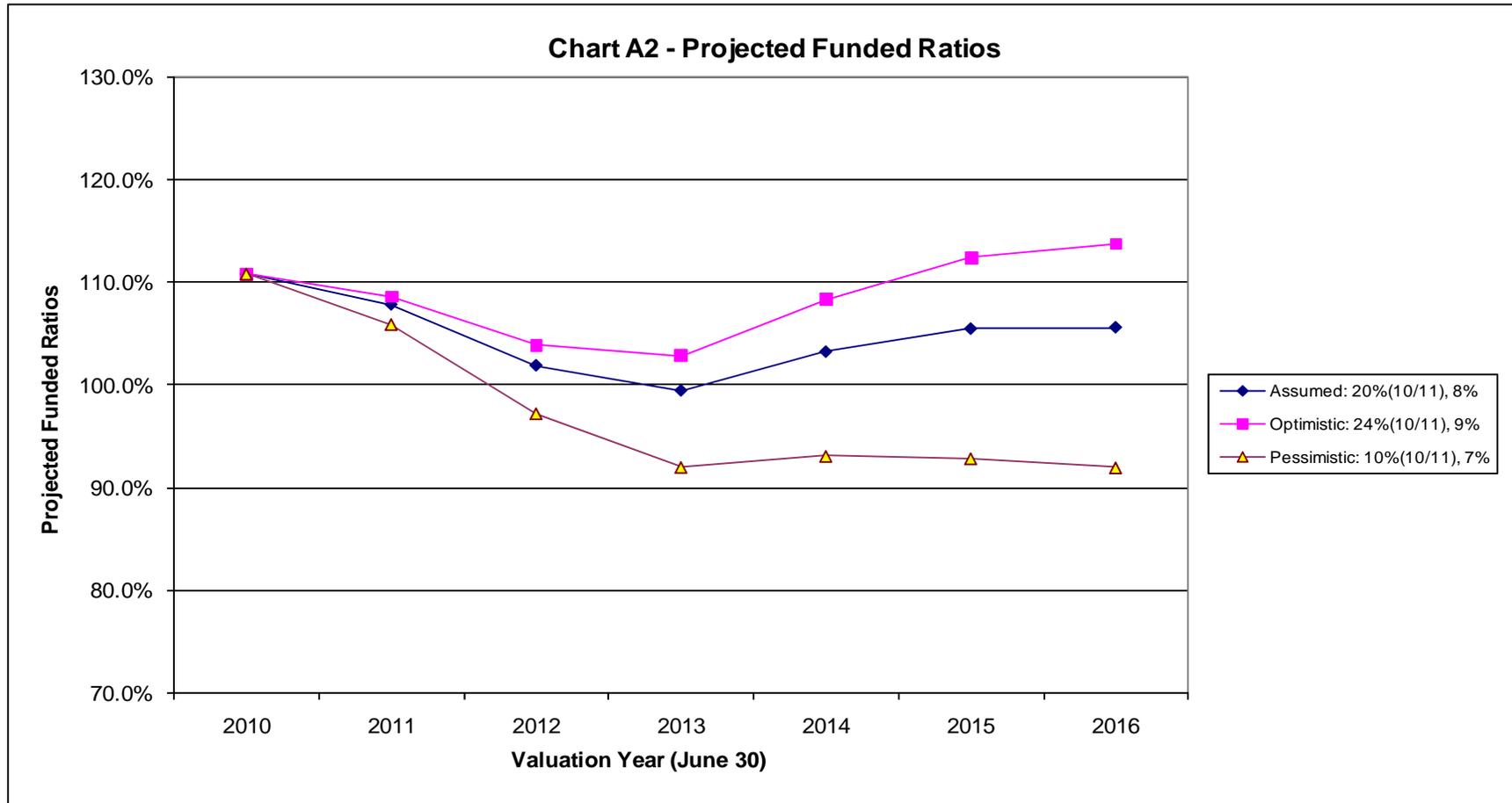
## ATTACHMENT 2

### **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:

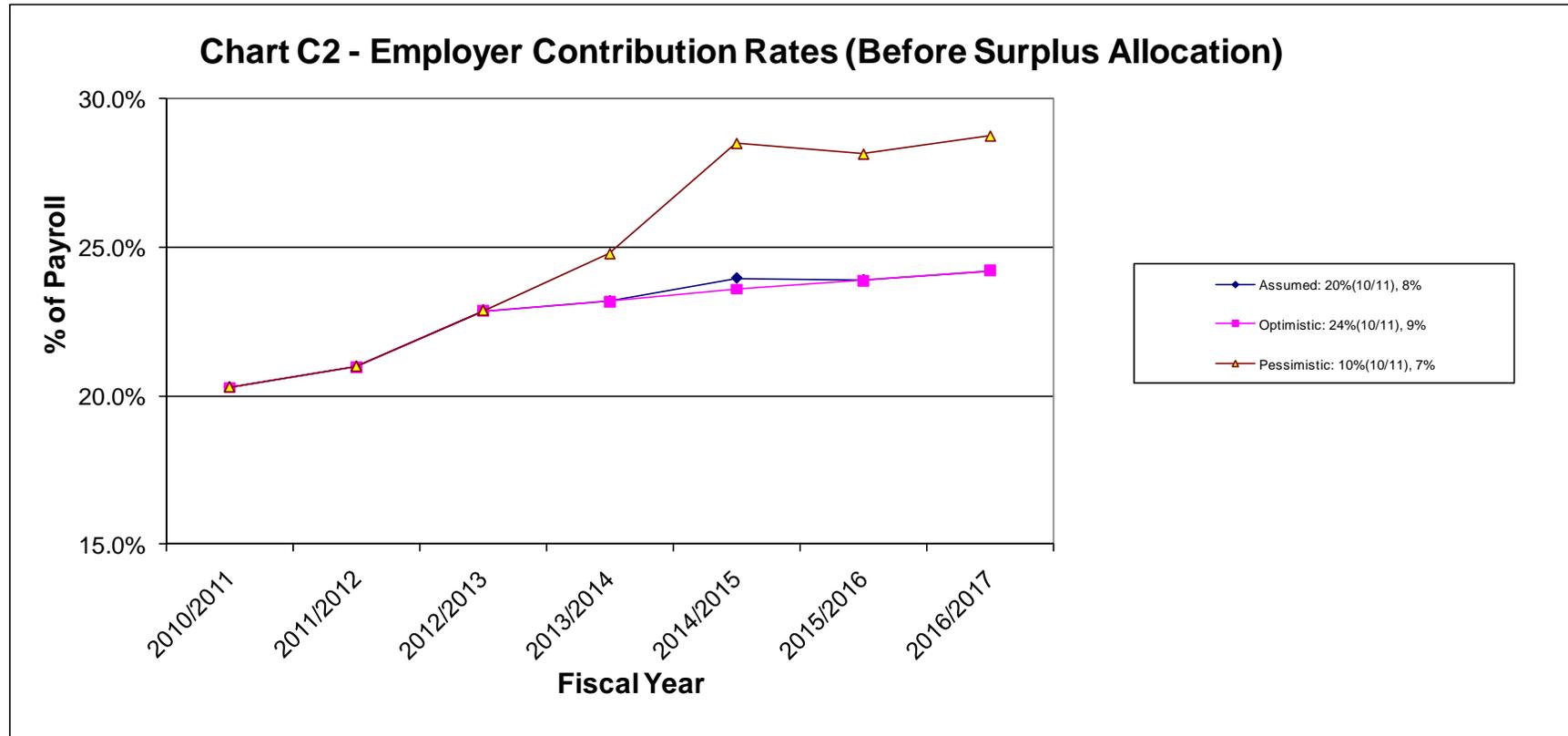
- Table A2 – Projected Funding Ratios
- Table B2 – Distributable Surplus (Separated into City and PRSB portions)
- Table C2 – Employer Contribution Rates, Before surplus allocation
- Table D2 – Employer Contribution Rates, After surplus allocation
- Table E2 – Monthly PRSB Benefit

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%	110.8%	107.8%	101.9%	99.4%	103.2%	105.5%	105.6%
Optimistic: 24%(10/11), 9%	110.8%	108.6%	103.9%	102.9%	108.3%	112.4%	113.7%
Pessimistic: 10%(10/11), 7%	110.8%	105.9%	97.2%	92.0%	93.1%	92.9%	92.0%



<b>Table B2 - Distributable Surplus (\$000)</b>							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
<b>Assumed: 20%(10/11), 8%</b>							
<b>Used in Settling Actual Employer Surplus, Current Fiscal Year</b>							
City Allocation	\$440	\$0	\$0	\$0	\$0	\$0	\$0
PRSB Allocation	\$220	\$0	\$0	\$0	\$0	\$0	\$0
<b>Used in Projecting Employer Surplus, Next Fiscal Year</b>							
City Allocation	\$401	\$0	\$0	\$0	\$0	\$0	\$0
<b>Optimistic: 24%(10/11), 9%</b>							
<b>Used in Settling Actual Employer Surplus, Current Fiscal Year</b>							
City Allocation	\$440	\$0	\$0	\$0	\$0	\$1,620	\$2,640
PRSB Allocation	\$220	\$0	\$0	\$0	\$0	\$810	\$1,320
<b>Used in Projecting Employer Surplus, Next Fiscal Year</b>							
City Allocation	\$401	\$0	\$0	\$0	\$0	\$1,599	\$2,606
<b>Pessimistic: 10%(10/11), 7%</b>							
<b>Used in Settling Actual Employer Surplus, Current Fiscal Year</b>							
City Allocation	\$440	\$0	\$0	\$0	\$0	\$0	\$0
PRSB Allocation	\$220	\$0	\$0	\$0	\$0	\$0	\$0
<b>Used in Projecting Employer Surplus, Next Fiscal Year</b>							
City Allocation	\$401	\$0	\$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%	20.28%	20.98%	22.87%	23.18%	23.95%	23.89%	24.21%
Optimistic: 24%(10/11), 9%	20.28%	20.98%	22.87%	23.18%	23.59%	23.89%	24.21%
Pessimistic: 10%(10/11), 7%	20.28%	20.98%	22.87%	24.78%	28.51%	28.15%	28.76%



<b>Table D2 - Employer Contribution Rates (After Surplus Allocation) (\$000)</b>							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
<b>Assumed: 20%(10/11), 8%</b>							
<b>Used in Settling Actual Employer Surplus, Current Fiscal Year</b>							
Employer Contribution Before Offset*	\$20,529	\$21,130	\$23,980	\$22,945	\$23,383	\$24,625	\$25,448
City Contribution Offset*	-\$440	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (From Prior Years)*	\$3,585	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$23,674	\$21,130	\$23,980	\$22,945	\$23,383	\$24,625	\$25,448
Actual City Contributions Based on Contribution Rate Calculated in the Prior Year	-\$20,383	-\$24,337	-\$24,338	-\$23,086	-\$23,384	-\$24,629	-\$25,459
Application of Prepaid Employer Contributions	\$0	\$3,563	\$417	\$141	\$1	\$5	\$12
Total Contributions After Applying Prepaid Employer Contributions**	\$3,291	\$357	\$59	\$0	\$358	\$0	\$0
Balance in Employer Surplus Reserve Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance in Prepaid Employer Contributions	-\$3,426	-\$371	-\$62	\$44	\$43	\$51	\$68
Payroll	\$102,686	\$101,658	\$104,770	\$99,338	\$99,338	\$103,312	\$105,378
<b>Used in Projecting Employer Surplus, Next Fiscal Year</b>							
Employer Contribution Before Offset	\$22,404	\$24,175	\$25,255	\$24,367	\$24,677	\$26,017	\$26,769
City Contribution Offset	-\$401	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (From Prior Years)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$22,003	\$24,175	\$25,255	\$24,367	\$24,677	\$26,017	\$26,769
Total Employer Contribution**	\$25,567	\$24,561	\$25,319	\$24,693	\$24,632	\$25,964	\$26,698
<b>Total Employer Contribution (% of pay)**</b>	<b>23.9%</b>	<b>23.2%</b>	<b>23.2%</b>	<b>23.9%</b>	<b>23.8%</b>	<b>24.2%</b>	<b>24.4%</b>
Payroll (Projected)	\$106,794	\$105,724	\$108,961	\$103,312	\$103,312	\$107,444	\$109,593

\*Normal cost only.

\*\*Normal cost plus UAAL (if any).

<b>Table D2 - Employer Contribution Rates (After Surplus Allocation) (\$000) (cont'd)</b>							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
<b>Optimistic: 24%(10/11), 9%</b>							
<b>Used in Settling Actual Employer Surplus, Current Fiscal Year</b>							
Employer Contribution Before Offset*	\$20,529	\$21,130	\$23,980	\$22,945	\$23,383	\$24,625	\$25,448
City Contribution Offset*	-\$440	\$0	\$0	\$0	\$0	-\$1,620	-\$2,640
City Surplus Reserve Account (From Prior Years)*	\$3,585	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$23,674	\$21,130	\$23,980	\$22,945	\$23,383	\$23,005	\$22,807
Actual City Contributions Based on Contribution Rate Calculated in the Prior Year	-\$20,383	-\$24,337	-\$24,338	-\$23,086	-\$23,384	-\$24,629	-\$22,182
Application of Prepaid Employer Contributions	\$0	\$3,563	\$417	\$141	\$1	\$1,624	-\$625
Total Contributions After Applying Prepaid Employer Contributions**	\$3,291	\$357	\$59	\$0	\$0	\$0	\$0
Balance in Employer Surplus Reserve Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance in Prepaid Employer Contributions	-\$3,426	-\$371	-\$62	\$44	\$43	\$1,736	\$1,227
Payroll	\$102,686	\$101,658	\$104,770	\$99,338	\$99,338	\$103,312	\$105,378
<b>Used in Projecting Employer Surplus, Next Fiscal Year</b>							
Employer Contribution Before Offset	\$22,404	\$24,175	\$25,255	\$24,367	\$24,677	\$26,017	\$26,769
City Contribution Offset	-\$401	\$0	\$0	\$0	\$0	-\$1,599	-\$2,606
City Surplus Reserve Account (From Prior Years)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$22,003	\$24,175	\$25,255	\$24,367	\$24,677	\$24,418	\$24,162
Total Employer Contribution**	\$25,567	\$24,561	\$25,319	\$24,321	\$24,632	\$22,613	\$22,886
<b>Total Employer Contribution (% of pay)**</b>	<b>23.9%</b>	<b>23.2%</b>	<b>23.2%</b>	<b>23.5%</b>	<b>23.8%</b>	<b>21.0%</b>	<b>20.9%</b>
Payroll (Projected)	\$106,794	\$105,724	\$108,961	\$103,312	\$103,312	\$107,444	\$109,593

\*Normal cost only.

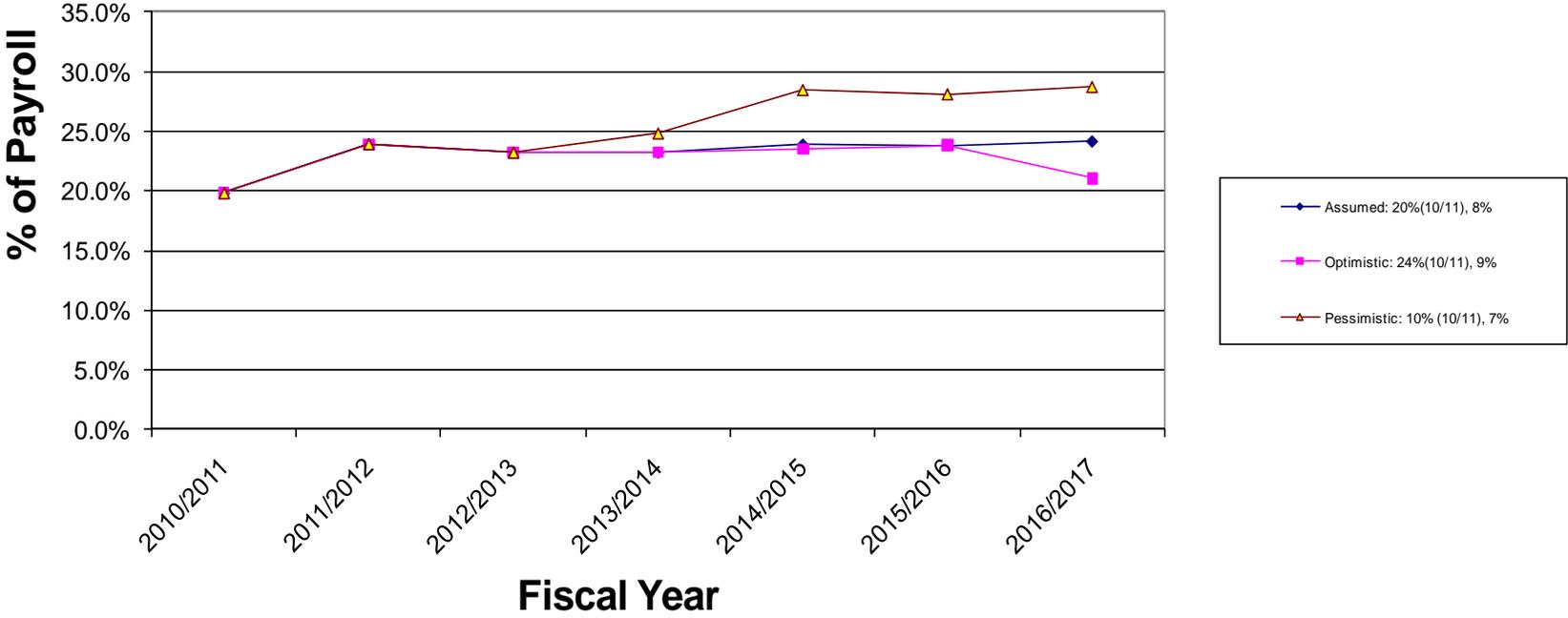
\*\*Normal cost plus UAAL (if any).

<b>Table D2 - Employer Contribution Rates (After Surplus Allocation) (\$000) (cont'd)</b>							
	Fiscal Year						
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
<b>Pessimistic: 10%(10/11), 7%</b>							
<b>Used in Settling Actual Employer Surplus, Current Fiscal Year</b>							
Employer Contribution Before Offset*	\$20,529	\$21,130	\$23,980	\$22,945	\$23,383	\$24,625	\$25,448
City Contribution Offset*	-\$440	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (From Prior Years)*	\$3,585	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$23,674	\$21,130	\$23,980	\$22,945	\$23,383	\$24,625	\$25,448
Actual City Contributions Based on Contribution Rate Calculated in the Prior Year	-\$20,383	-\$24,337	-\$24,338	-\$23,086	-\$23,384	-\$24,629	-\$25,459
Application of Prepaid Employer Contributions	\$0	\$3,563	\$417	\$141	\$1	\$5	\$12
Total Contributions After Applying Prepaid Employer Contributions**	\$3,291	\$357	\$59	\$1,589	\$4,887	\$4,401	\$4,795
Balance in Employer Surplus Reserve Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance in Prepaid Employer Contributions	-\$3,426	-\$371	-\$62	\$44	\$43	\$51	\$68
Payroll	\$102,686	\$101,658	\$104,770	\$99,338	\$99,338	\$103,312	\$105,378
<b>Used in Projecting Employer Surplus, Next Fiscal Year</b>							
Employer Contribution Before Offset	\$22,404	\$24,175	\$25,255	\$24,367	\$24,677	\$26,017	\$26,769
City Contribution Offset	-\$401	\$0	\$0	\$0	\$0	\$0	\$0
City Surplus Reserve Account (From Prior Years)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions Before Applying Prepaid Employer Contributions	\$22,003	\$24,175	\$25,255	\$24,367	\$24,677	\$26,017	\$26,769
Total Employer Contribution**	\$25,567	\$24,561	\$27,062	\$29,404	\$29,033	\$30,852	\$32,375
<b>Total Employer Contribution (% of pay)**</b>	<b>23.9%</b>	<b>23.2%</b>	<b>24.8%</b>	<b>28.5%</b>	<b>28.1%</b>	<b>28.7%</b>	<b>29.5%</b>
Payroll (Projected)	\$106,794	\$105,724	\$108,961	\$103,312	\$103,312	\$107,444	\$109,593

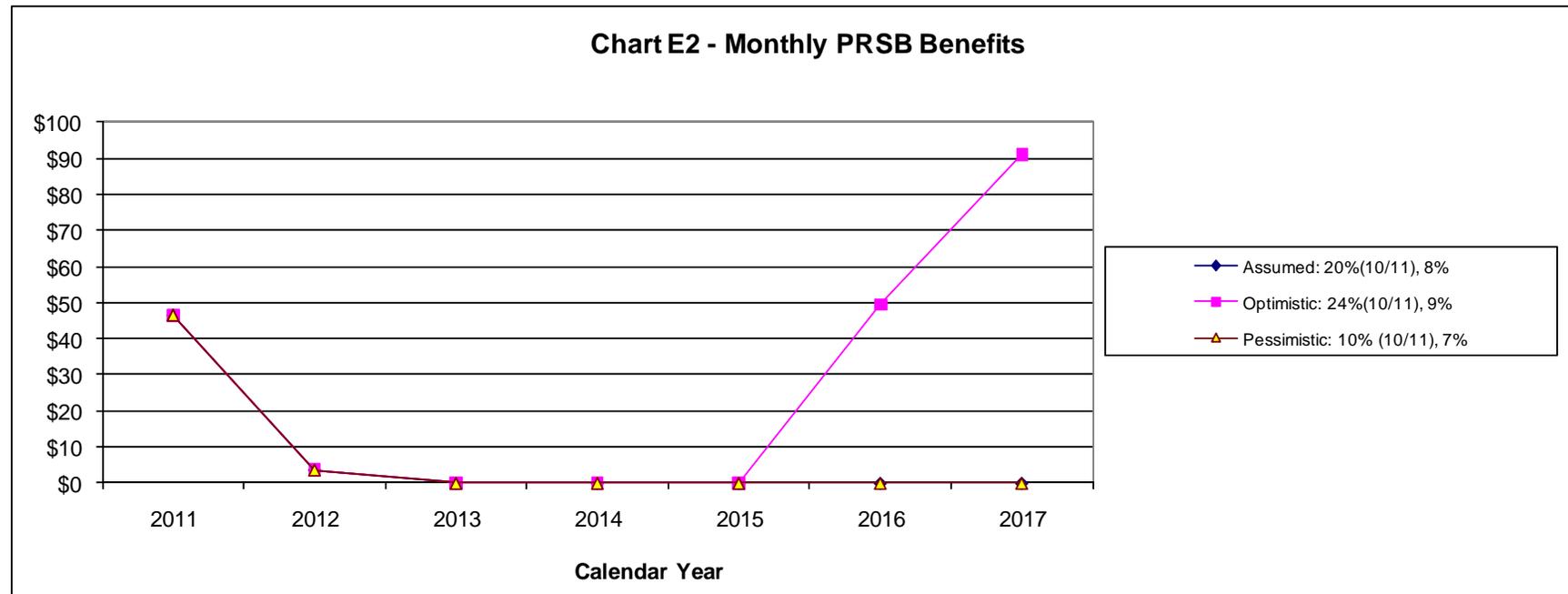
\*Normal cost only.

\*\*Normal cost plus UAAL (if any).

### Chart D2 - Employer Contribution Rates (After Surplus Allocation)



	Calendar Year						
	2011	2012	2013	2014	2015	2016	2017
<b>Assumed: 20%(10/11), 8%</b>							
Monthly Benefit	\$47	\$4	\$0	\$0	\$0	\$0	\$0
Eligible PRSB Recipients	959	995	1,019	1,042	1,064	1,090	1,114
<b>Optimistic: 24%(10/11), 9%</b>							
Monthly Benefit	\$47	\$4	\$0	\$0	\$0	\$50	\$91
Eligible PRSB Recipients	959	995	1,019	1,042	1,064	1,090	1,114
<b>Pessimistic: 10%(10/11), 7%</b>							
Monthly Benefit	\$47	\$4	\$0	\$0	\$0	\$0	\$0
Eligible PRSB Recipients	959	995	1,019	1,042	1,064	1,090	1,114



### 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>
<b>Approach #1</b>							
Assumed: 20%(10/11), 8%	19.9%	23.9%	22.5%	22.9%	24.5%	23.1%	22.6%
Optimistic: 24%(10/11), 9%	19.9%	23.9%	22.5%	22.2%	22.7%	22.5%	22.6%
Pessimistic: 10%(10/11), 7%	19.9%	23.9%	22.5%	25.2%	28.2%	28.2%	28.6%
<b>Approach #2</b>							
Assumed: 20%(10/11), 8%	19.9%	23.9%	23.2%	23.2%	23.9%	23.8%	24.2%
Optimistic: 24%(10/11), 9%	19.9%	23.9%	23.2%	23.2%	23.5%	23.8%	21.0%
Pessimistic: 10%(10/11), 7%	19.9%	23.9%	23.2%	24.8%	28.5%	28.1%	28.7%