



BARTEL
ASSOCIATES, LLC

MISCELLANEOUS AND SAFETY PLANS

CalPERS Actuarial Issues – 6/30/11 Valuation
Preliminary Results

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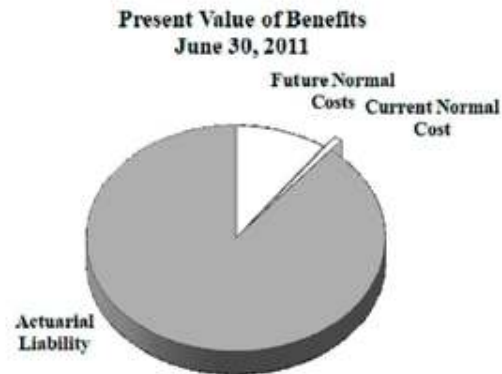
August 6, 2013

Agenda

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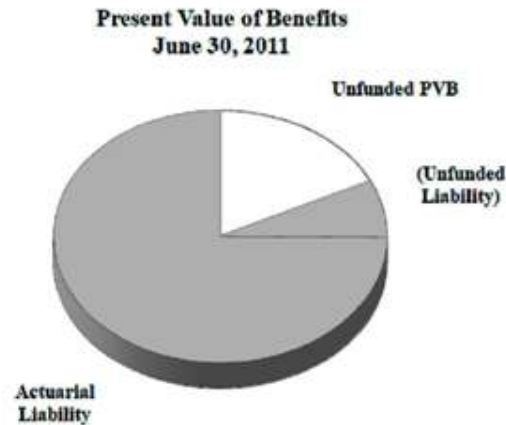
Definitions



- **PVB - Present Value of all Projected Benefits:**
 - Discounted value (at valuation date - 6/30/11), of all future expected benefit payments based on various (actuarial) assumptions
- **Actuarial Liability:**
 - Discounted value (at valuation date) of benefits earned through valuation date [value of past service benefit]
 - Portion of PVB “earned” at measurement
- **Current Normal Cost:**
 - Portion of PVB allocated to (or “earned” during) current year
 - Value of employee and employer current service benefit



Definitions



- **Target-** Have money in the bank to cover Actuarial Liability (past service)
- **Unfunded Liability** - Money short of target at valuation date
- **Excess Assets / Surplus:**
 - Money over and above target at that point in time.
 - Doesn't mean you're done contributing.
- **Super Funded:**
 - Assets cover whole pie (PVB)
 - If everything goes exactly like PERS calculated, you'll never have to put another (employer or employee) dime in.



Recent City, State and CalPERS Issues

- CalPERS June 30, 2008 & 2009 investment losses
- City implemented new second pension tiers for all bargaining groups July 2012
- Pension reform legislation (PEPRA) becomes law January 2013



CalPERS Upcoming Issues

- CalPERS actuarial staff recommended & CalPERS Board adopted changes to contribution policy. Four reasons why:
 - Asset corridor generates volatility when extreme events happen
 - Slow progress towards increased funded status
 - Current method needs improved transparency
 - GASB 68 would require CalPERS use a lower discount rate when using longer amortization periods or aggressive asset smoothing

- Changes - Direct rate smoothing based on:
 - 5 year ramp up
 - No asset smoothing
 - Future Gains/losses 25 year amortization period
 - with 5 year ramp up means paid over 30 years
 - Method & Assumption changes 15 year amortization period
 - with 5 year ramp up means paid over 20 years
 - No cap on rate increases each year



CalPERS Upcoming Issues

- CalPERS starting an asset allocation study and Chief Actuary will:
 - Likely recommend a .25% margin
 - Possibly (but does not know until asset allocation study is done) recommend .25% reduction in real rate of return.
- CalPERS starting an assumption study and Chief Actuary will likely recommend generational mortality improvement
- Timing:
 - All the above will probably be included in 6/30/13 valuation (first impact 15/16 rates)
Contribution policy change will be estimated as part of 6/30/12 valuation when they project contribution rates.



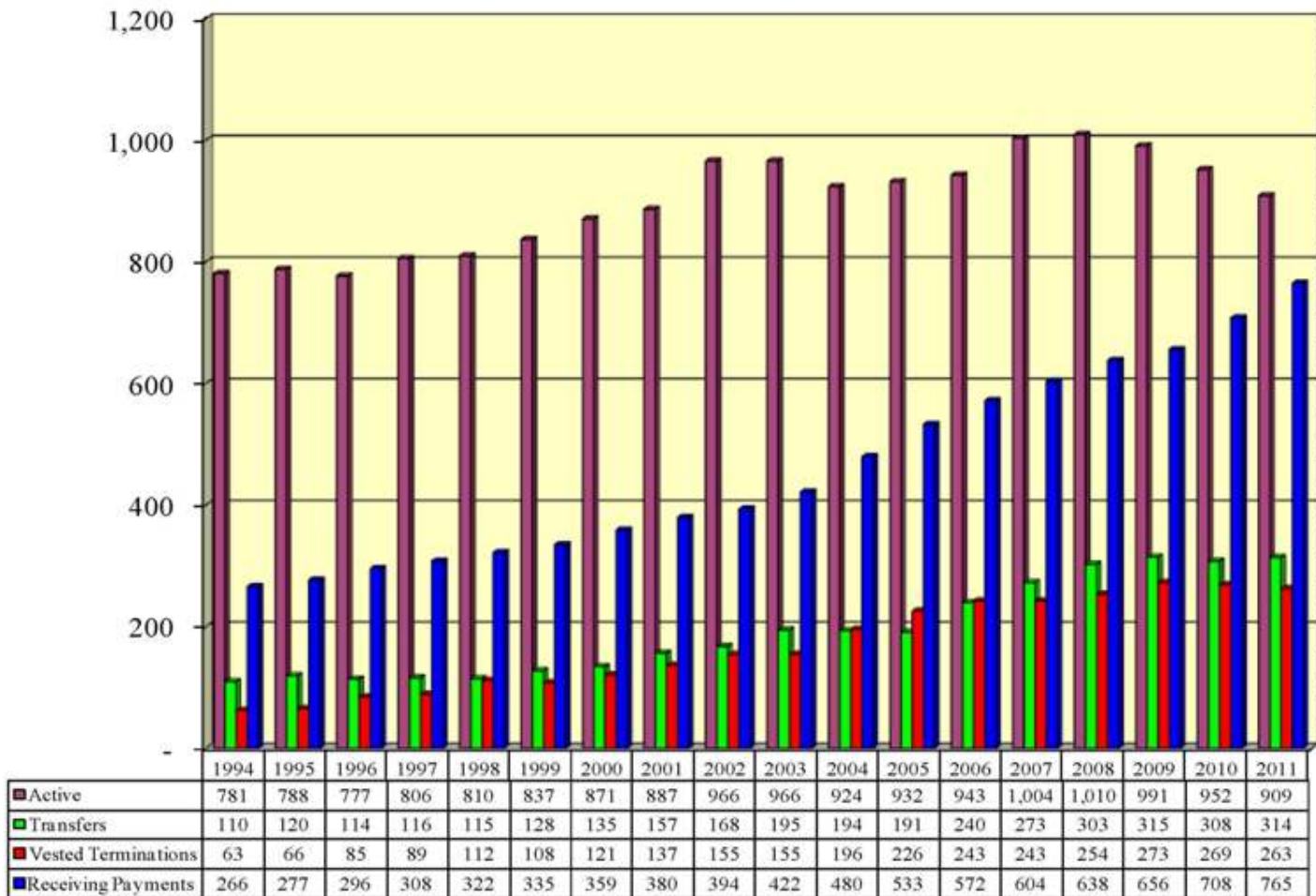
Summary of Demographic Information – Miscellaneous

	1994	2003	2010	2011
Actives				
■ Counts	781	966	952	909
■ Average				
• Age	43	47	48	48
• City Service	10	11	11	12
• PERSable Wages	\$42,500	\$54,400	\$67,800	\$68,000
■ Total PERSable Wages (millions)	36.3	57.8	71.1	67.5
Receiving Payments				
■ Counts				
• Service		335	587	639
• Disability		44	52	55
• Beneficiaries		43	69	71
• Total	266	422	708	765
■ Average Annual City Provided Benefit ¹				
• Service		\$14,700	\$25,400	\$27,300
• Disability		7,100	6,500	6,000
• Service Retirements in last 5 years		20,300	29,400	32,200

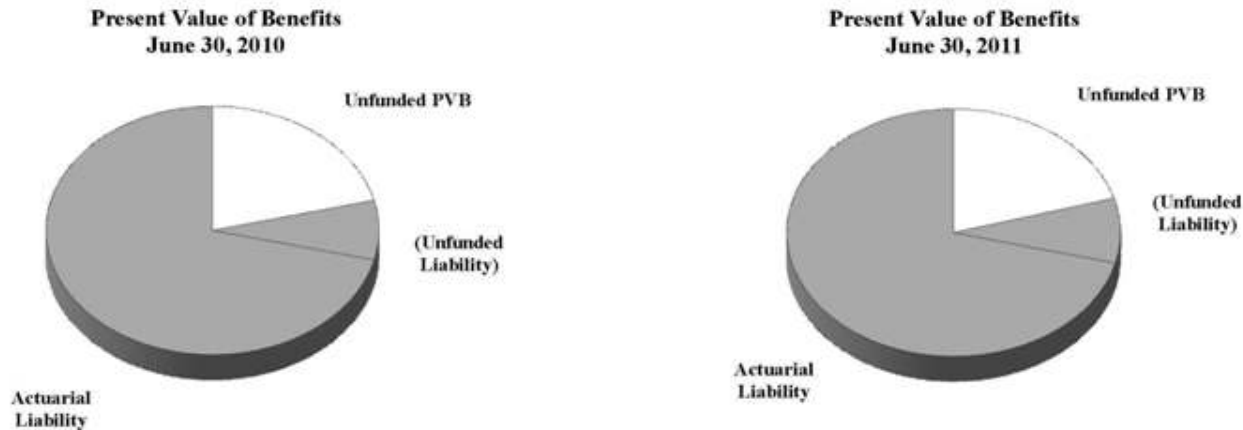
¹ Average City provided pensions are based on City service & City benefit formula, and are not representative of benefits for long service employees.



Members Included in Valuation Miscellaneous



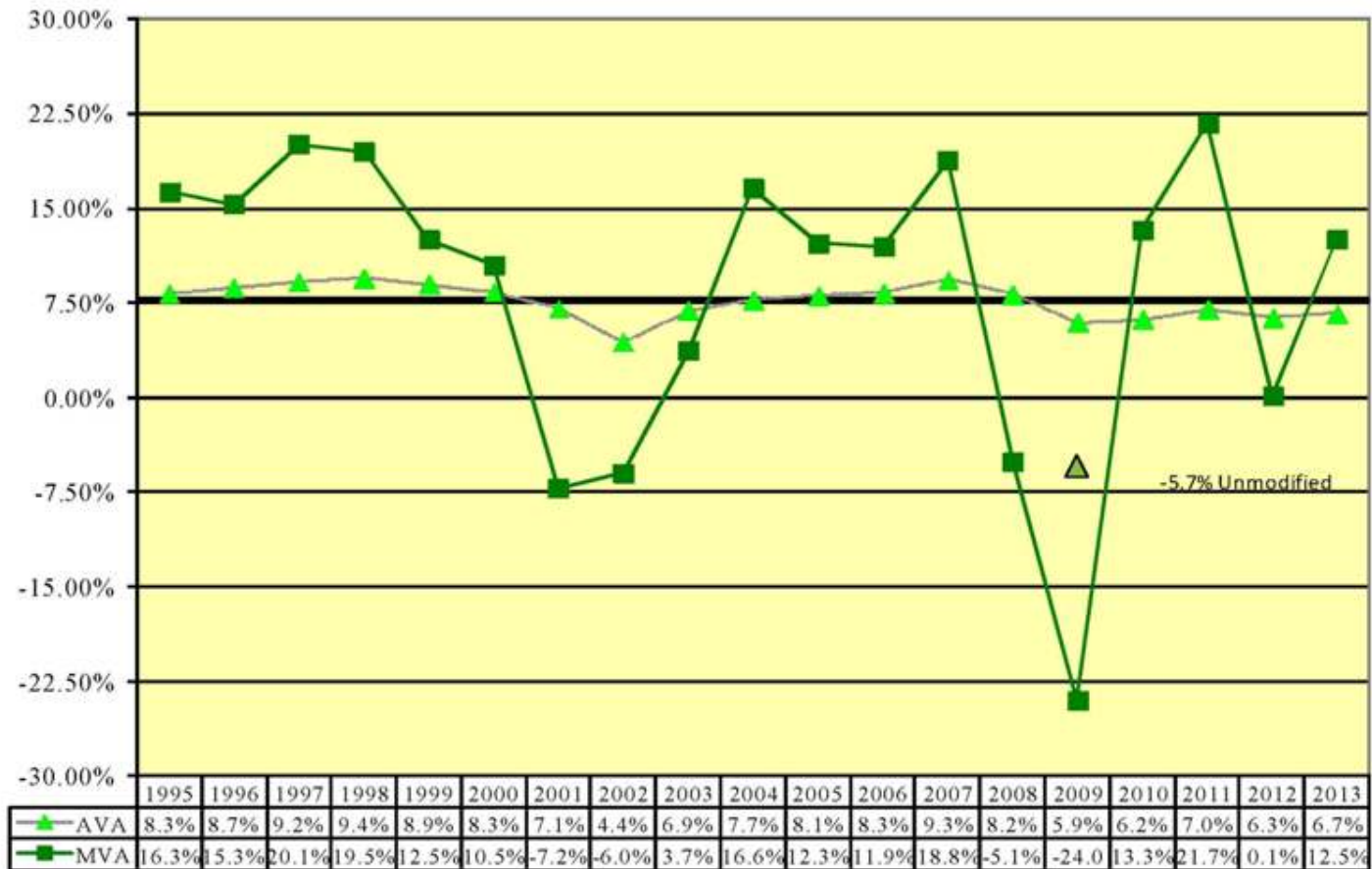
Plan Funded Status Miscellaneous



<u>June 30, 2010</u>			<u>June 30, 2011</u>	
\$	454,000,000	Actuarial Liability	\$	485,600,000
	<u>404,600,000</u>	Actuarial Asset Value		<u>427,800,000</u>
	(49,400,000)	(Unfunded Liability)		(57,800,000)
<u>June 30, 2010</u>			<u>June 30, 2011</u>	
\$	454,000,000	Actuarial Liability	\$	485,600,000
	<u>321,400,000</u>	Market Asset Value		<u>385,000,000</u>
	(132,600,000)	(Unfunded Liability)		(100,600,000)



CalPERS Investment Return

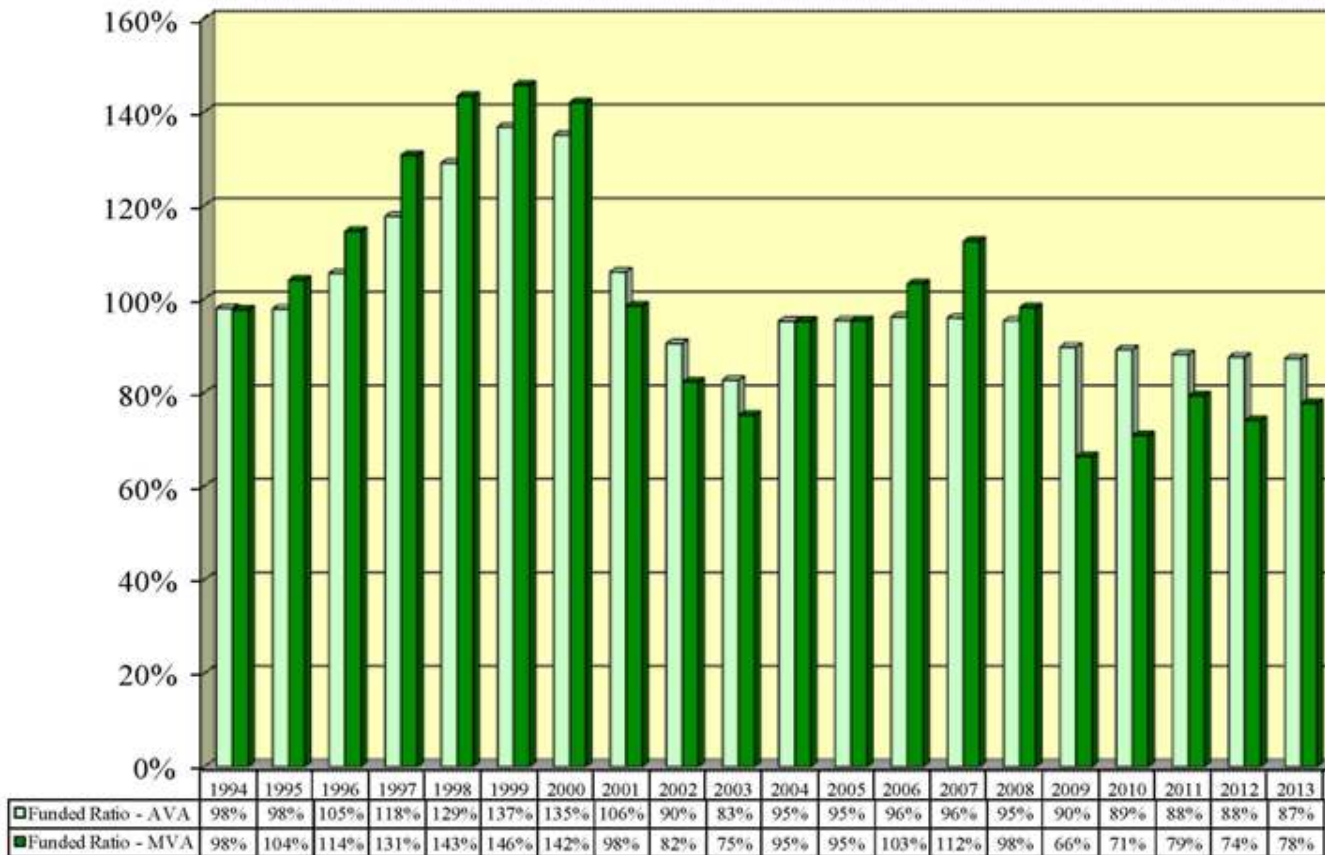


Above assumes contributions, payments, etc. received evenly throughout year.
 June 30, 2013 return released by CalPERS.



Funded Status Miscellaneous

Excludes POB Liability



6/30/12 & 6/30/13 funded status estimated



Historical Contribution Rates Miscellaneous

Excludes Debt Service



Contribution Projections Miscellaneous

■ Market Value Investment Return:

- June 30, 2012 0.1%²
- June 30, 2013 12.5%³
- June 30, 2014 - 2017 Poor Investment Return: \approx 0.2% - 3.4%
- Expected Investment Ret: \approx 7.50%
- Good Investment Return: \approx 11.6% - 15.1%

■ No Other: Gains/Losses, Method/Assumption Changes, Benefit Improvements

■ Excludes Employer Paid Member Contributions (EPMC)

■ Tier 2 2.5%^{@55} effective 7/7/12

■ New hire assumptions:

- Assumes 50% of 2013 new hires will be Classic Tier 2 (2.5%^{@55}) and 50% will be New Members with PEPRAs benefits.
- Assumes Classic Members will decrease from 50% to 0% of new hires over 20 years.

² Based on CalPERS CAFR.

³ Based on CalPERS press release.



Contribution Projections Miscellaneous

- In addition to above assumptions:
 - New Amortization Periods and Smoothing Methods
 - 4/17/13 Board Agenda Item 8b
 - 5 Year Direct Rate Smoothing
 - 25 Year (Fixed) Amortization Period of Gains and Losses, paid over 30 years
- Changes will take place June 30, 2013 affecting 2015/16 contribution rates
- CalPERS will amortize the smoothing method change using 25 Year (Fixed) Amortization Period paid over 30 years.

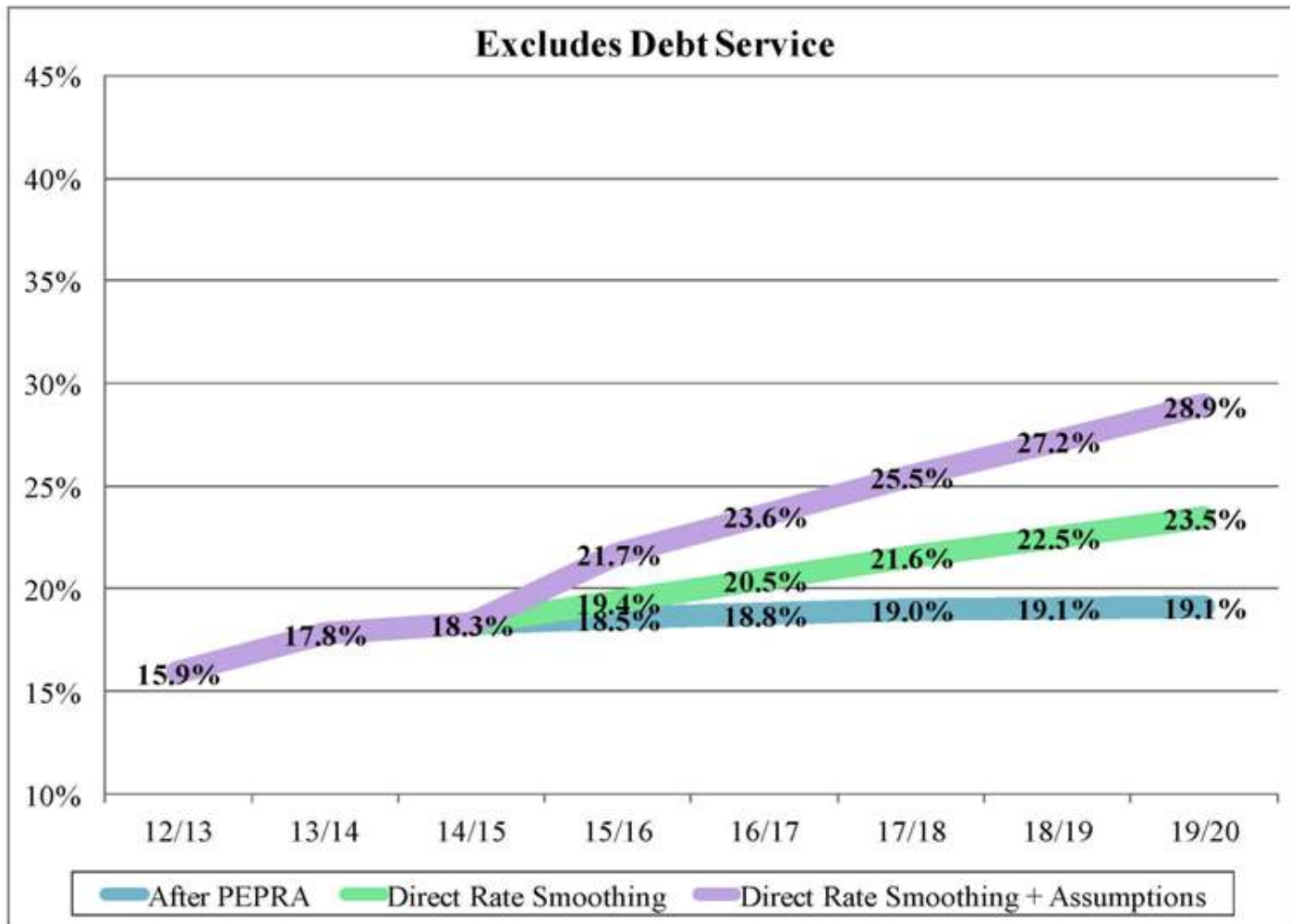


Contribution Projections Miscellaneous

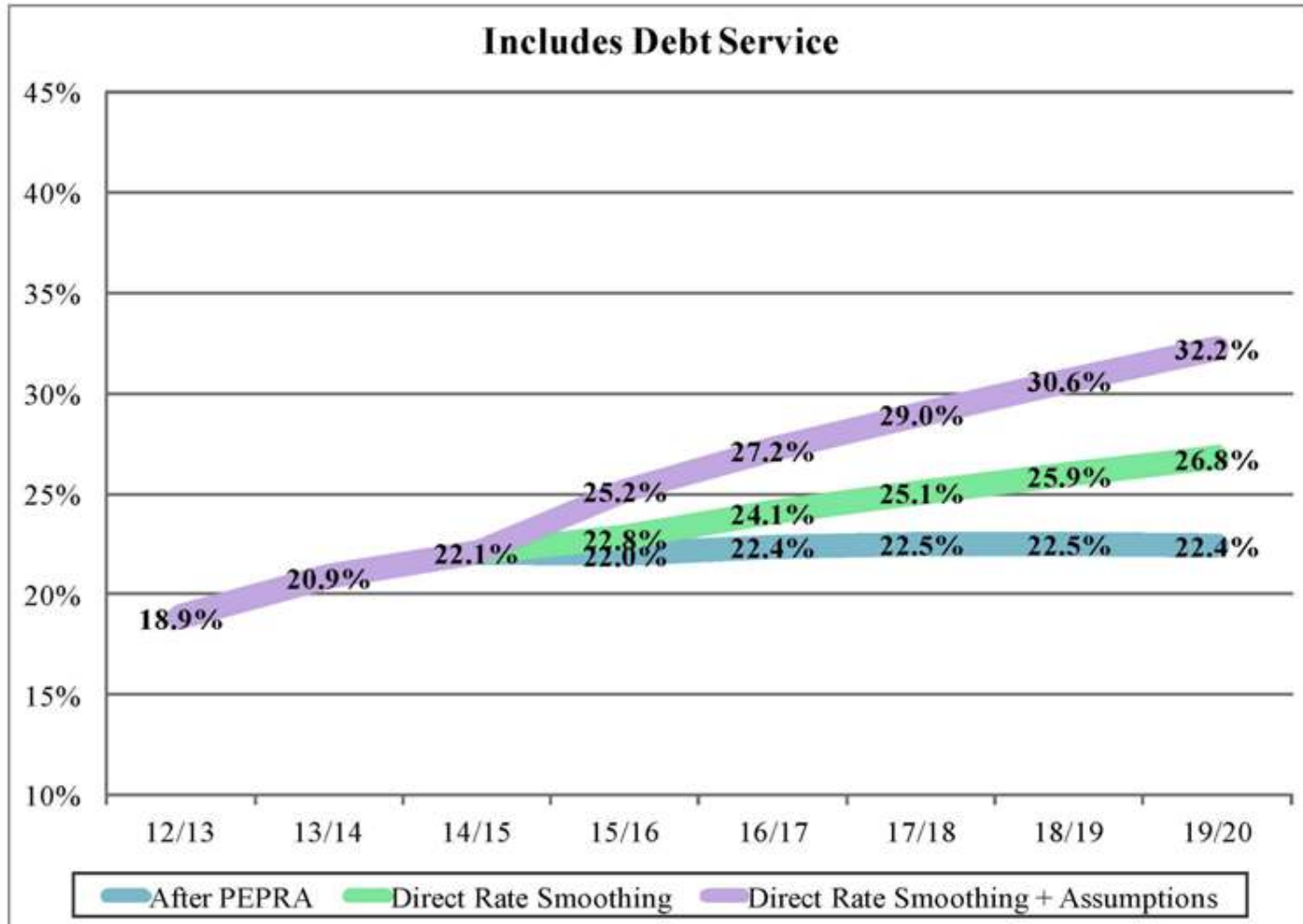
- In addition to above assumptions and CalPERS contribution policy changes:
 - Anticipated discount rate change from 7.50% to 7.25%
 - Anticipated mortality assumption change
- Above changes assumed to take place June 30, 2013 affecting 2015/16 contribution rates
- We expect CalPERS will amortize the above changes as follows:
 - The smoothing method change is will be paid over 30 years.
 - The discount rate and mortality changes will be paid over 20 years



Contribution Projections Miscellaneous



Contribution Projections Miscellaneous



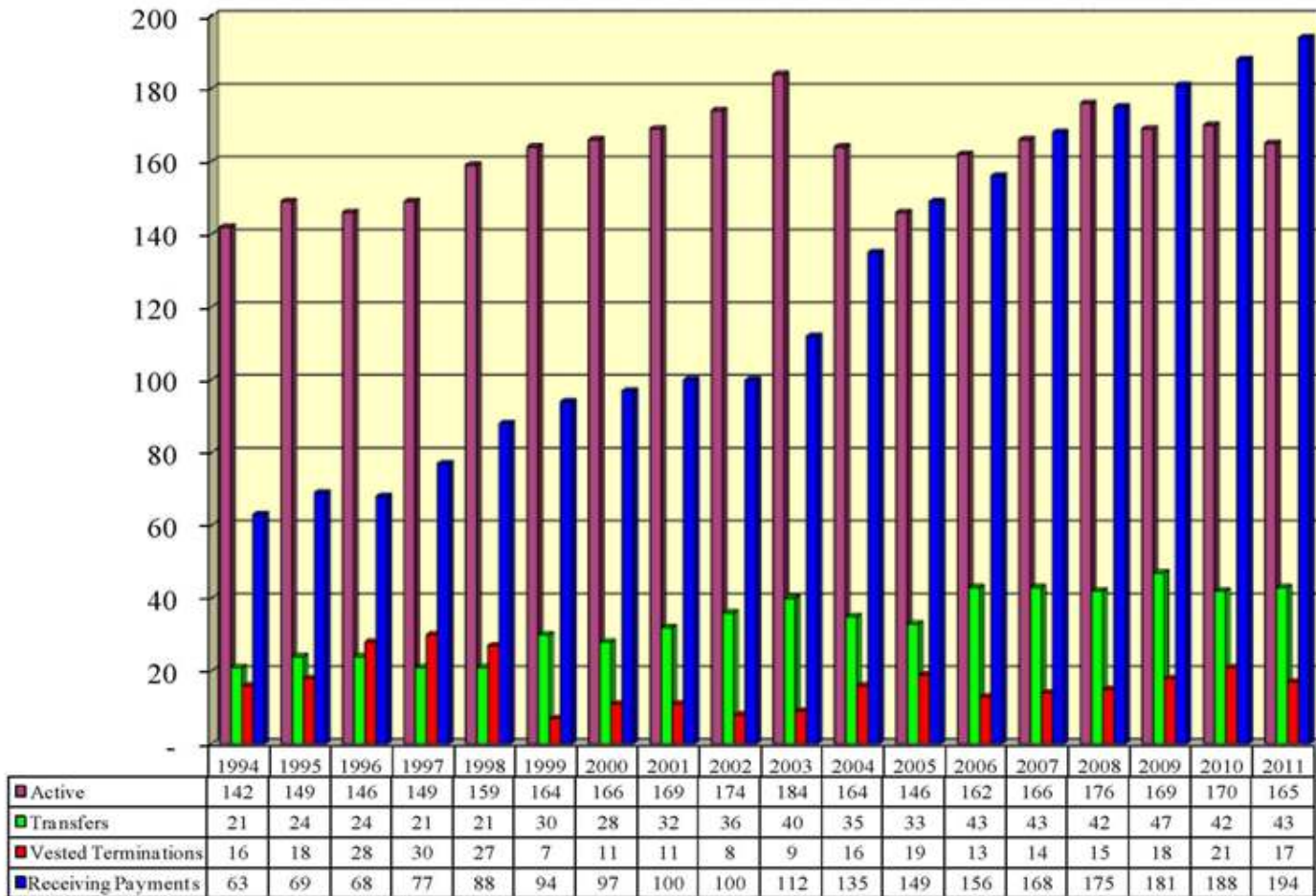
Summary of Demographic Information – Police Safety

	1994	2003	2010	2011
Actives				
■ Counts	142	184	170	165
■ Average				
• Age	43	39	39	40
• City Service	13	11	10	11
• PERSable Wages	\$53,600	\$86,900	\$112,700	\$114,000
■ Total PERSable Wages (millions)	8.3	17.6	21.1	20.6
Receiving Payments				
■ Counts				
• Service		41	90	94
• Disability		59	83	85
• Beneficiaries		12	15	15
• Total	63	112	188	194
■ Average Annual City Provided Benefit ⁴				
• Service		\$23,200	\$49,500	\$50,300
• Disability		25,500	42,000	42,900
• Service Retirements in last 5 years		36,900	51,000	55,200

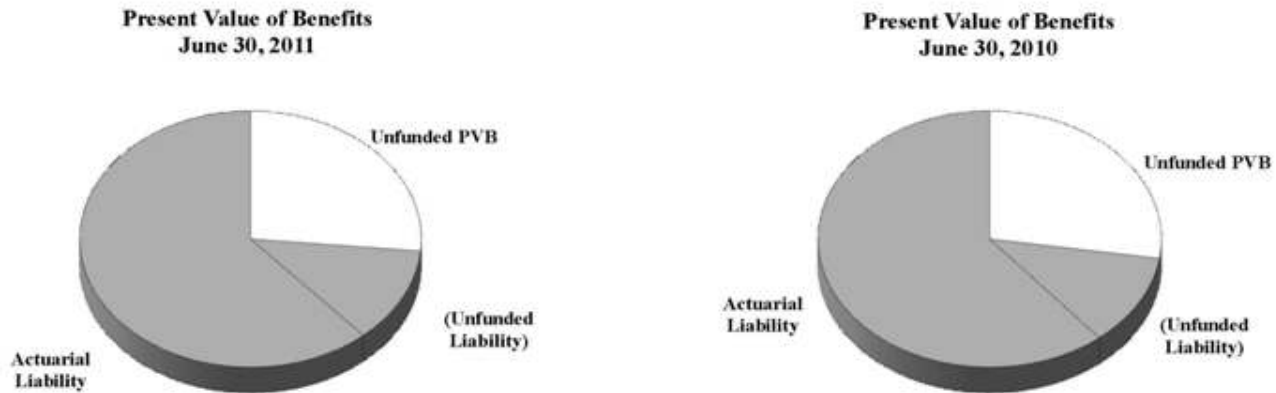
⁴ Average City provided pensions are based on City service & City benefit formula, and are not representative of benefits for long service employees.



Members Included in Valuation Police Safety



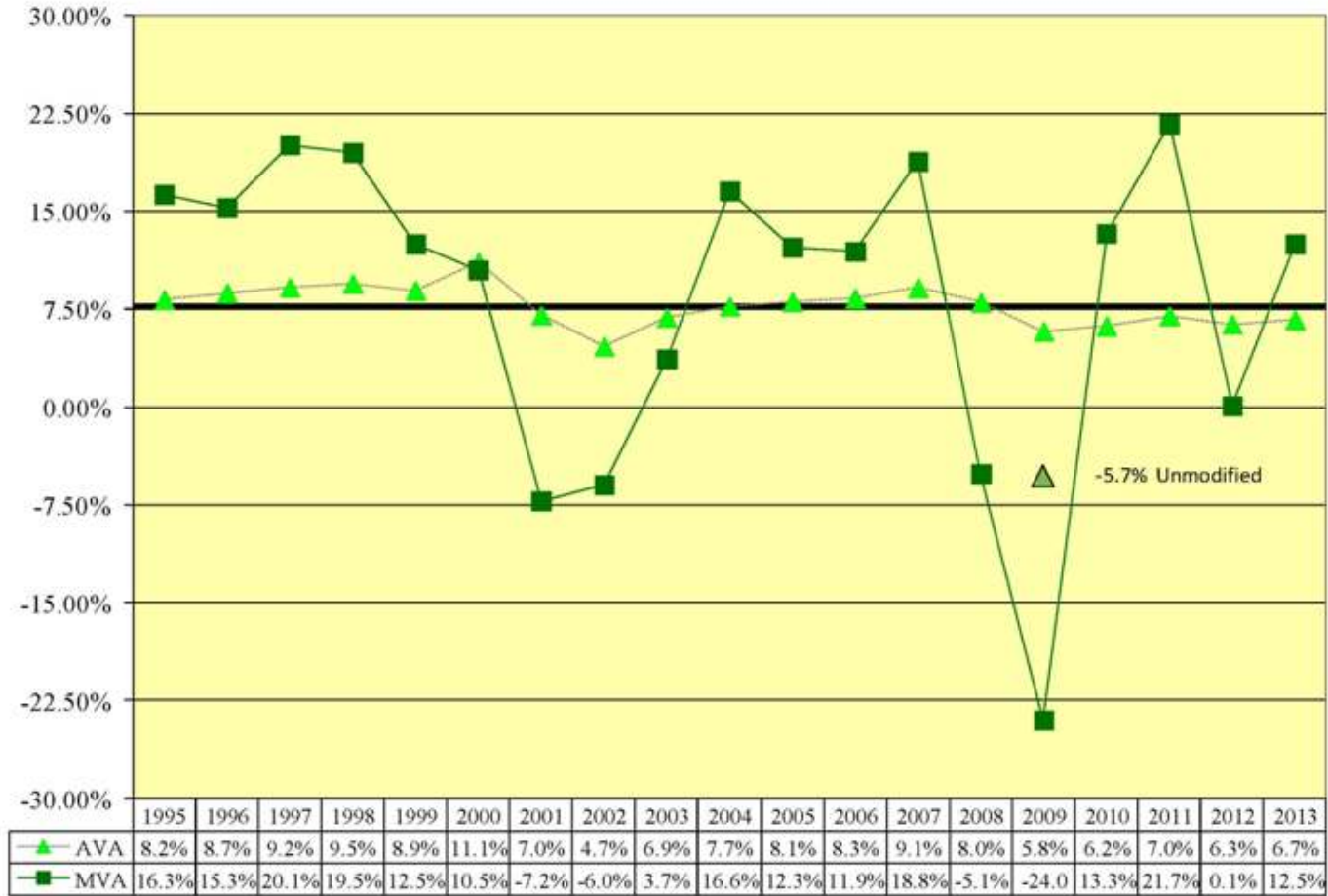
Plan Funded Status Police Safety



<u>June 30, 2010</u>			<u>June 30, 2011</u>	
\$	182,200,000	Actuarial Liability	\$	193,600,000
	<u>147,600,000</u>	Actuarial Asset Value		<u>155,700,000</u>
	(34,600,000)	(Unfunded Liability)		(37,900,000)
<u>June 30, 2010</u>			<u>June 30, 2011</u>	
\$	182,200,000	Actuarial Liability	\$	193,600,000
	<u>117,100,000</u>	Market Asset Value		<u>140,400,000</u>
	(65,100,000)	(Unfunded Liability)		(53,200,000)



CalPERS Investment Return

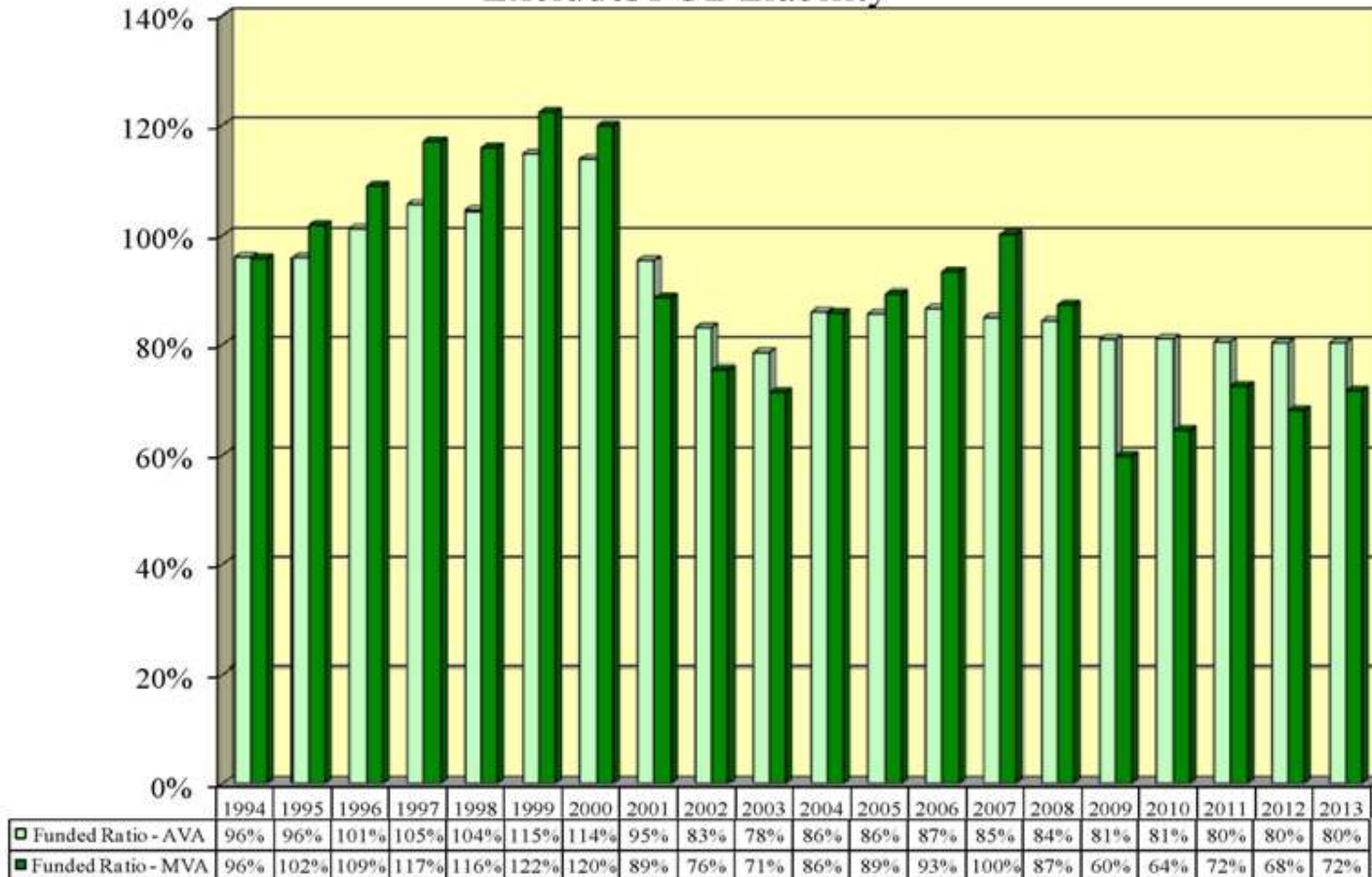


Above assumes contributions, payments, etc. received evenly throughout year.
 June 30, 2013 return released by CalPERS.



Funded Status Police Safety

Excludes POB Liability

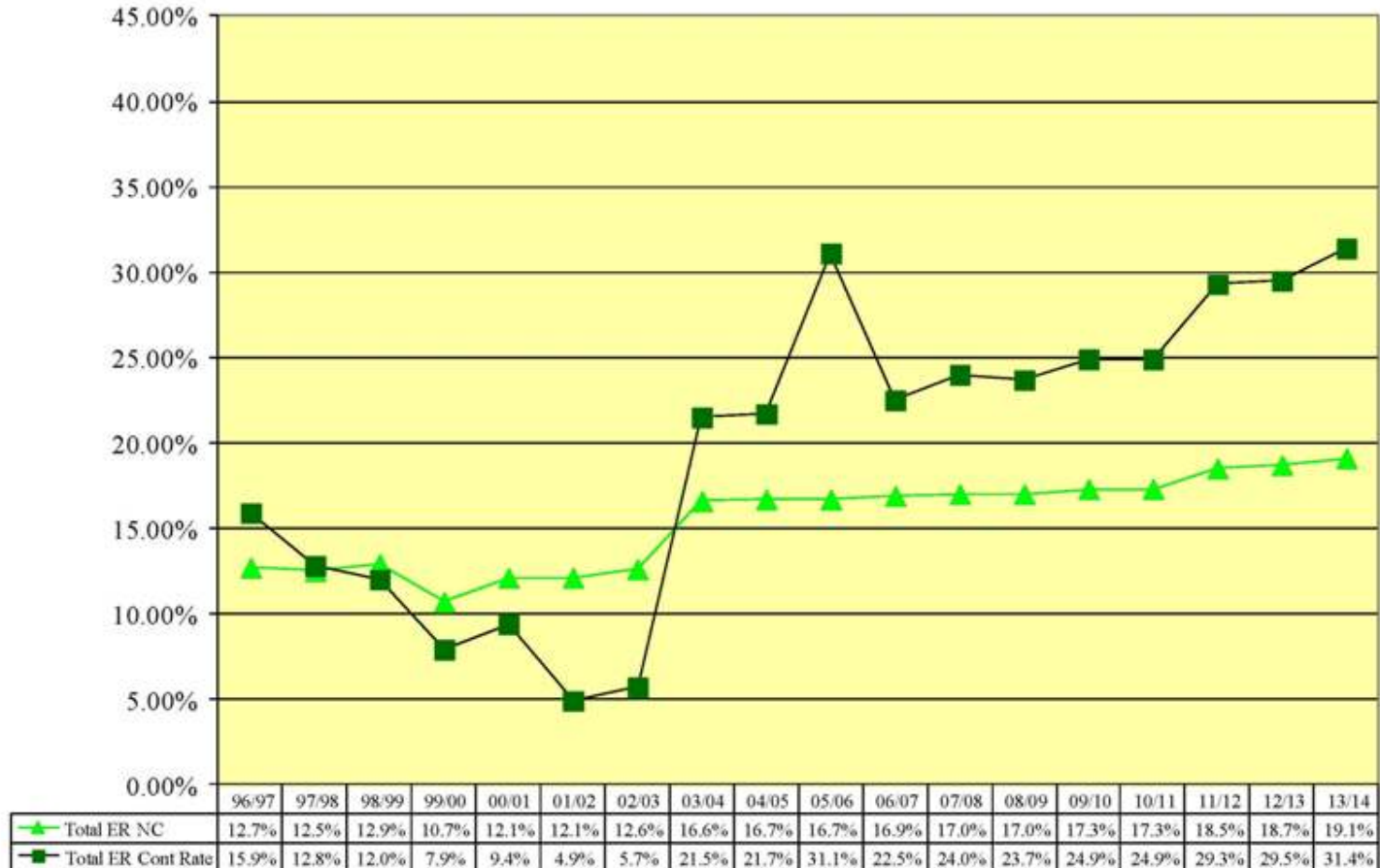


6/30/12 & 6/30/13 funded status estimated



Historical Contribution Rates Police Safety

Excludes Debt Service



Contribution Projections Police Safety

- Market Value Investment Return:
 - June 30, 2012 0.1%⁵
 - June 30, 2013 12.5%⁶
 - June 30, 2014 - 2017

Poor Investment Return:	≈ 0.2% - 3.4%
Expected Investment Ret:	≈ 7.50%
Good Investment Return:	≈ 11.6% - 15.1%
- No Other: Gains/Losses, Method/Assumption Changes, Benefit Improvements
- Excludes Employer Paid Member Contributions (EPMC)
- Tier 2 3@55 with 3 year final average earnings effective 7/7/12
- New hire assumptions:
 - Assumes 50% of 2013 new hires will be Classic Tier 2 Members (3%@55) and 50% will be New Members with PEPRAs benefits.
 - Assumes Classic Members will decrease from 50% to 0% of new hires over 10 years.

⁵ Based on CalPERS CAFR.

⁶ Based on CalPERS press release.



Contribution Projections Police Safety

- In addition to above assumptions:
 - New Amortization Periods and Smoothing Methods
 - 4/17/13 Board Agenda Item 8b
 - 5 Year Direct Rate Smoothing
 - 25 Year (Fixed) Amortization Period of Gains and Losses, paid over 30 years
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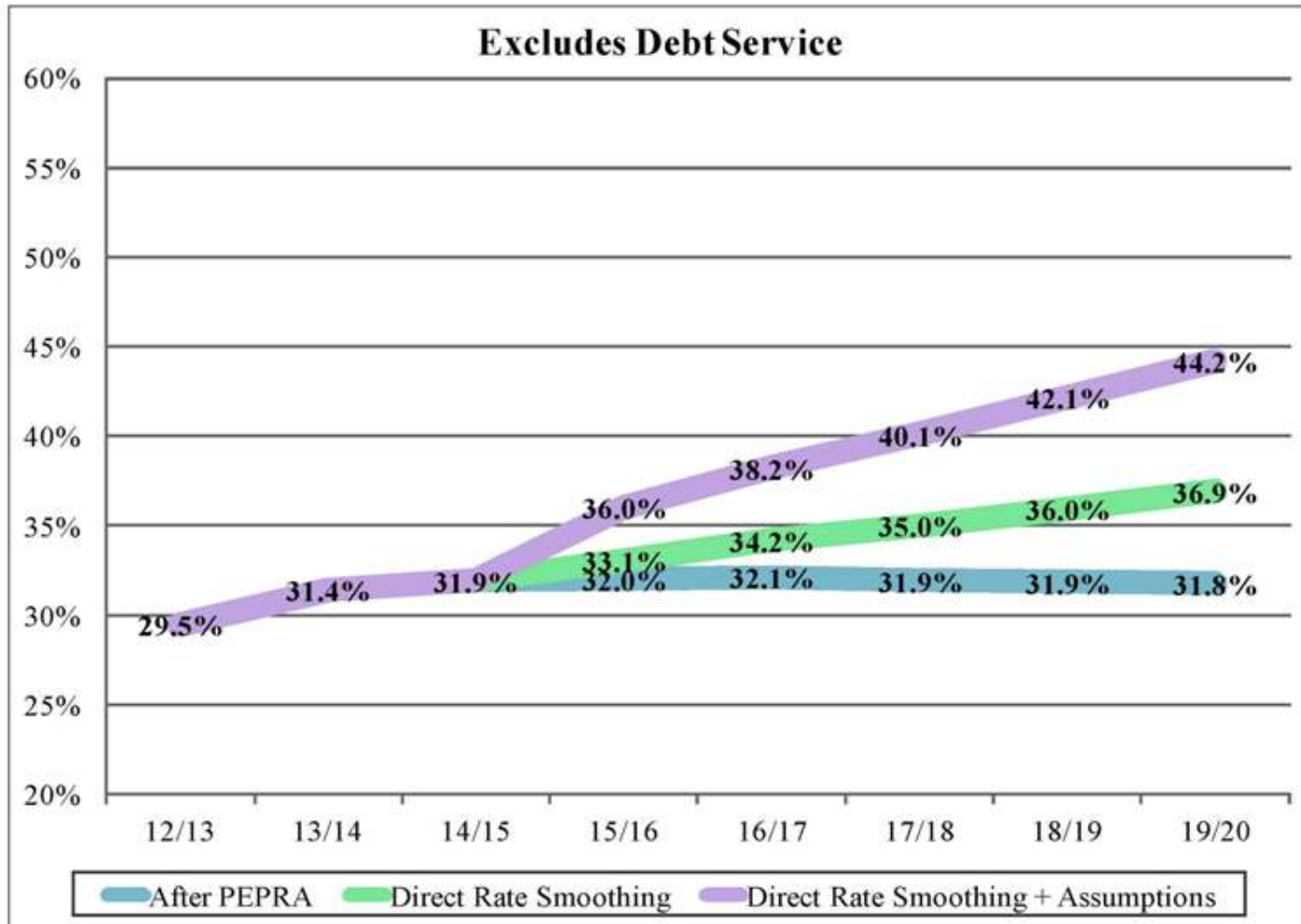


Contribution Projections Police Safety

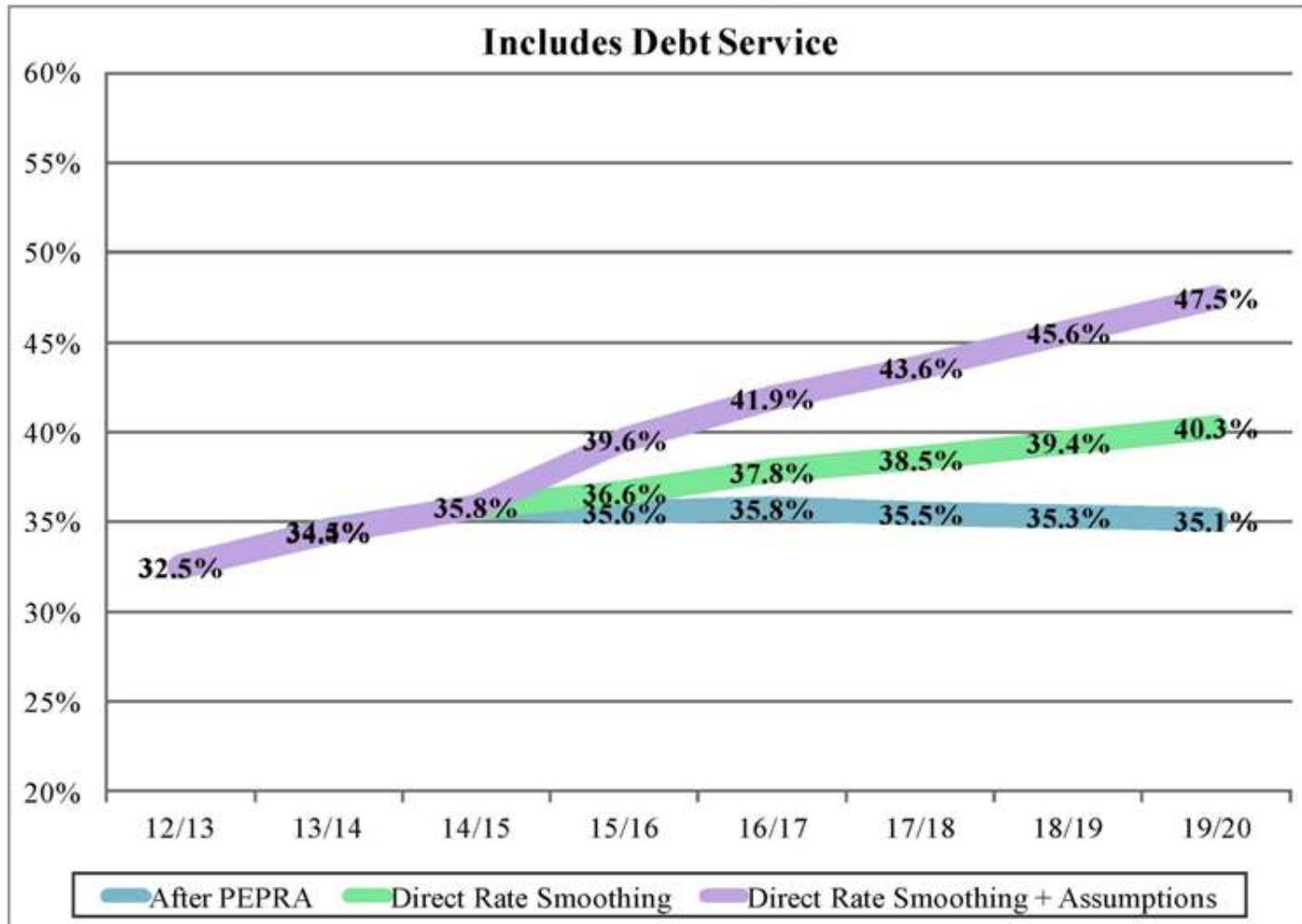
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Contribution Projections Police Safety



Contribution Projections Police Safety



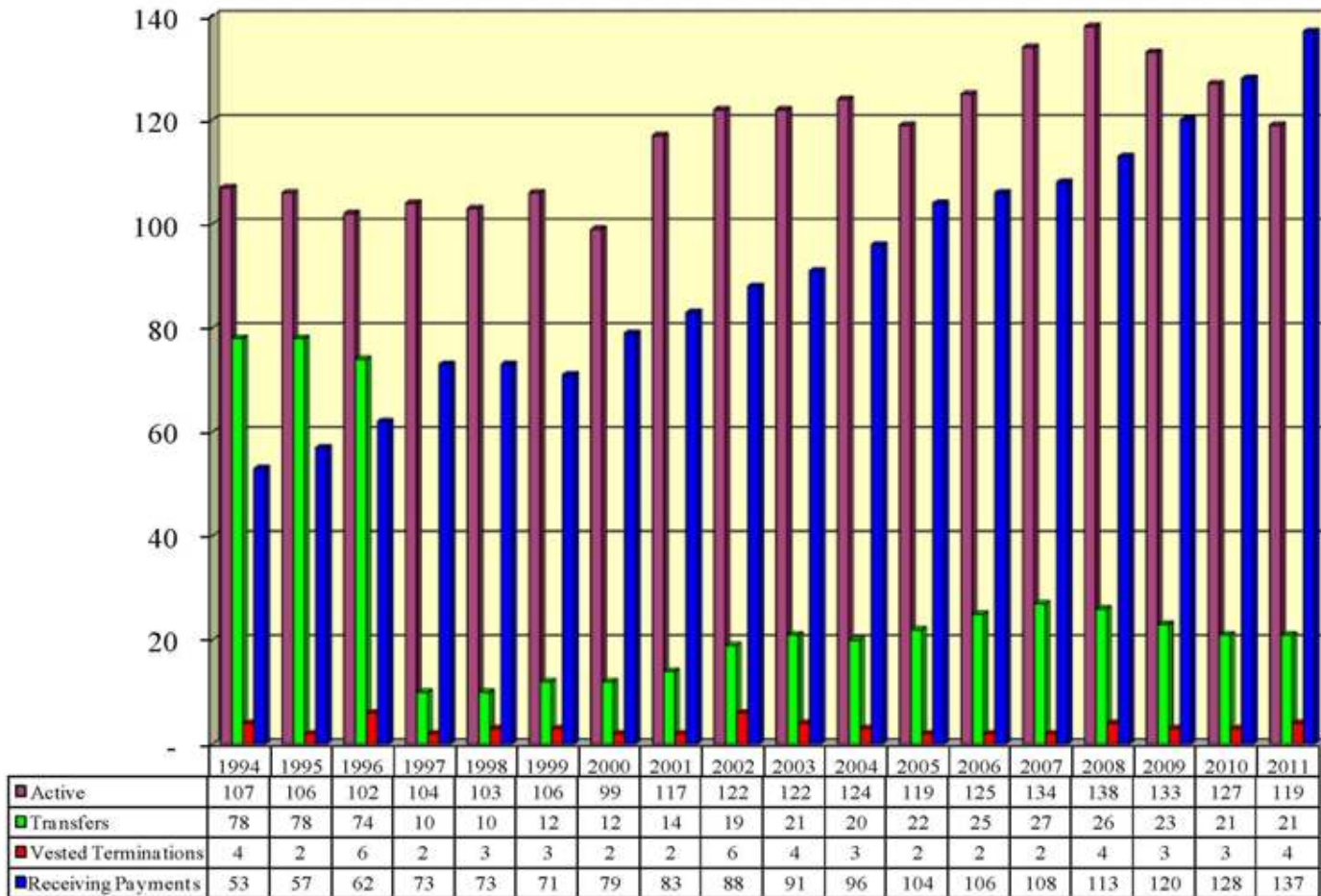
Summary of Demographic Information – Fire Safety

	1994	2003	2010	2011
Actives				
■ Counts	107	122	127	119
■ Average				
• Age	43	40	42	42
• City Service	14	13	13	13
• PERSable Wages	\$50,700	\$83,000	\$122,300	\$119,800
■ Total PERSable Wages (millions)	5.9	11.1	17.1	15.6
Receiving Payments				
■ Counts				
• Service		39	65	71
• Disability		45	52	54
• Beneficiaries		7	11	12
• Total	53	91	128	137
■ Average Annual City Provided Benefit ⁷				
• Service		\$33,500	\$49,400	\$54,300
• Disability		27,400	42,100	42,900
• Service Retirements in last 5 years		41,000	59,900	69,200

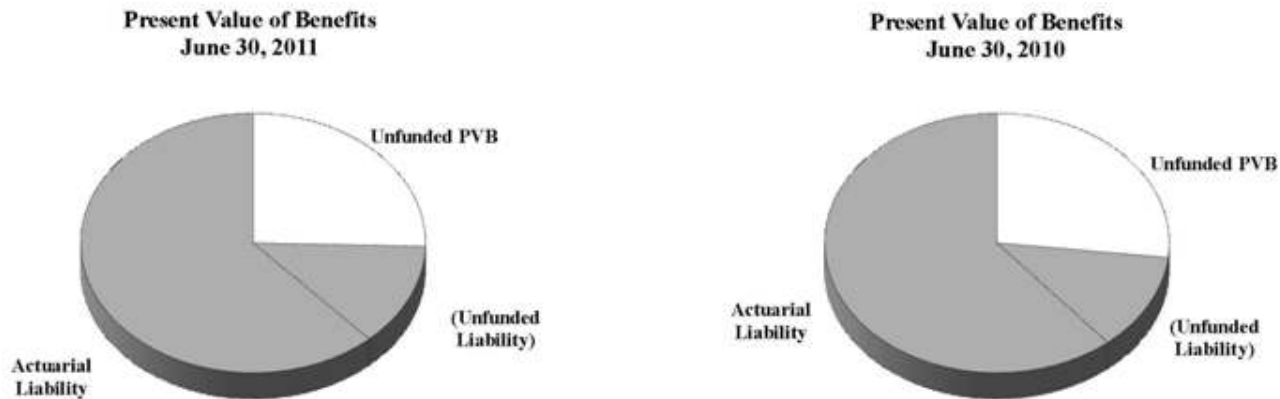
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Members Included in Valuation Fire Safety



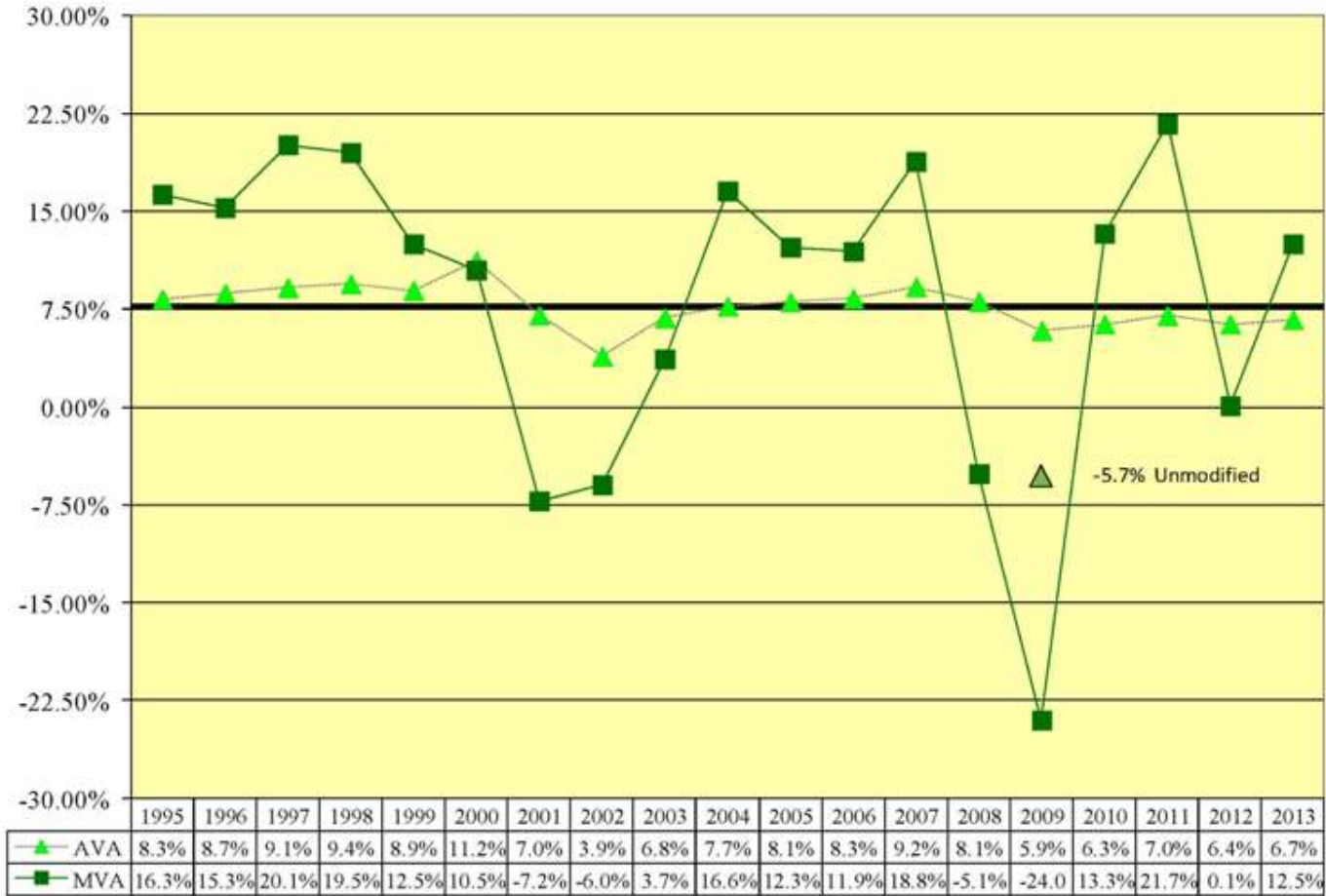
Plan Funded Status Fire Safety



<u>June 30, 2010</u>			<u>June 30, 2011</u>	
\$	143,400,000	Actuarial Liability	\$	153,500,000
	<u>115,000,000</u>	Actuarial Asset Value		<u>121,600,000</u>
	(28,400,000)	(Unfunded Liability)		(31,900,000)
<u>June 30, 2010</u>			<u>June 30, 2011</u>	
\$	143,400,000	Actuarial Liability	\$	153,500,000
	<u>91,400,000</u>	Market Asset Value		<u>109,900,000</u>
	(52,000,000)	(Unfunded Liability)		(43,600,000)



CalPERS Investment Return

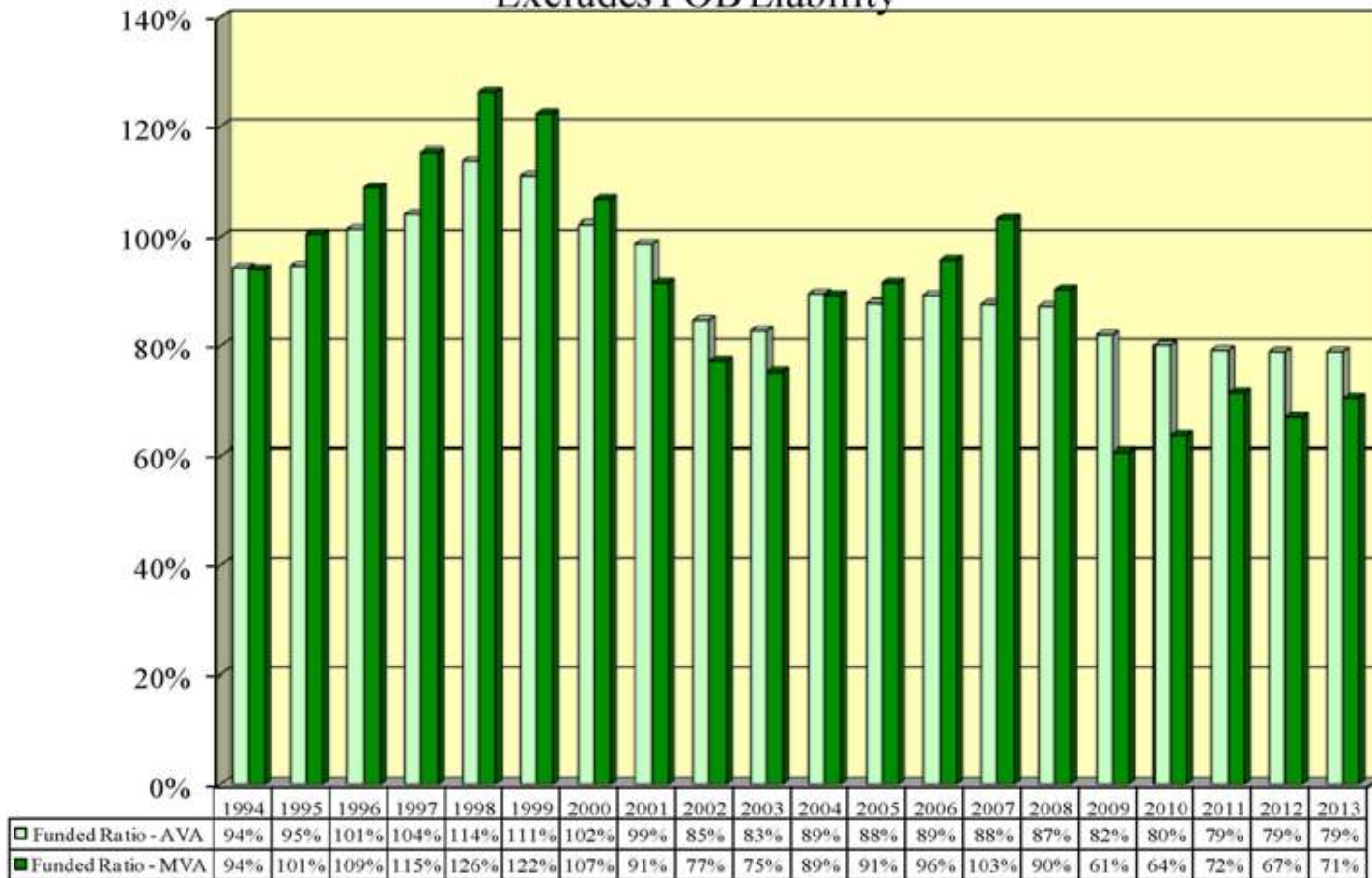


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Funded Status Fire Safety

Excludes POB Liability

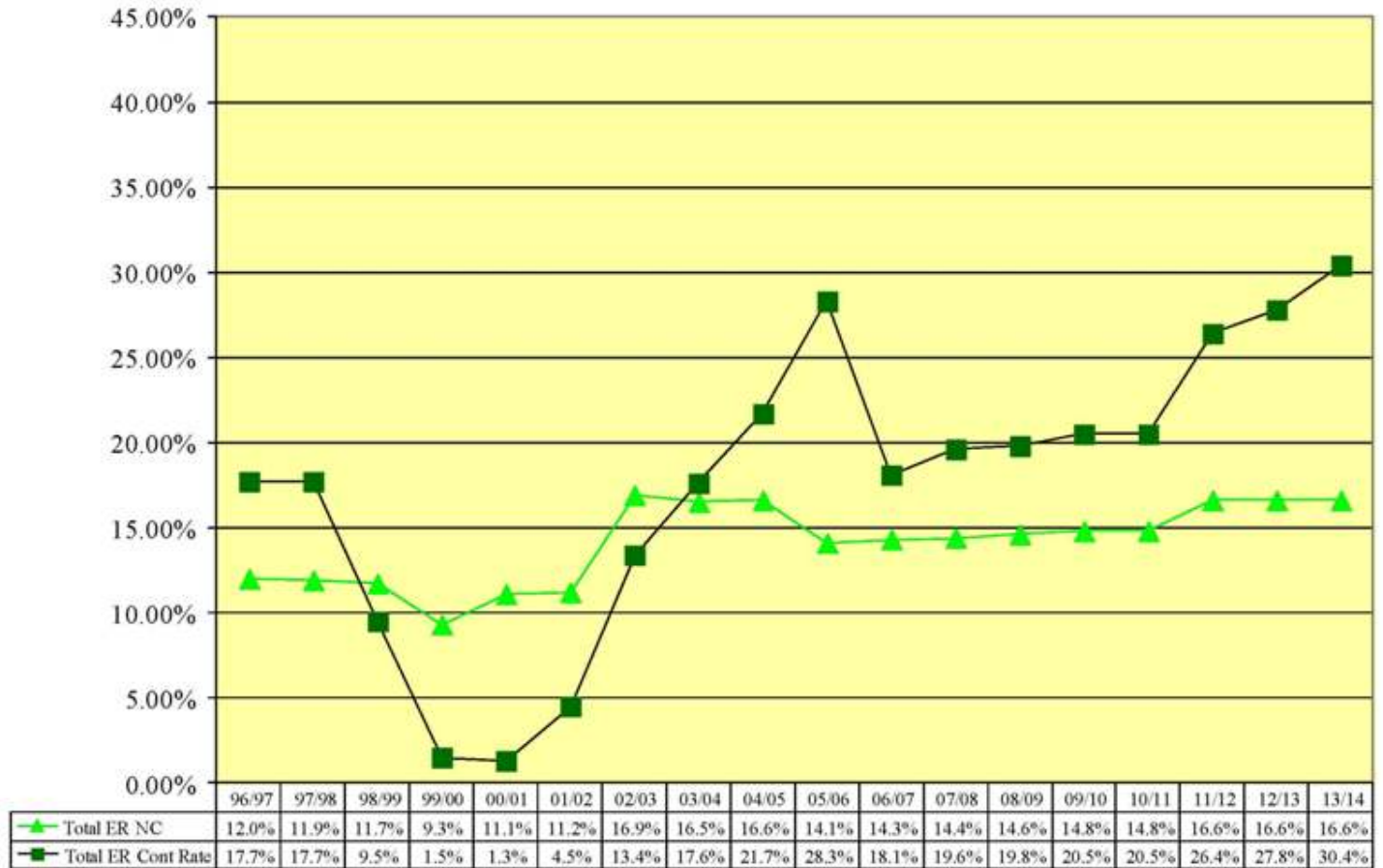


6/30/12 & 6/30/13 funded status estimated



Historical Contribution Rates Fire Safety

Excludes Debt Service



Contribution Projections Fire Safety

- Market Value Investment Return:
 - June 30, 2012 0.1%⁸
 - June 30, 2013 12.5%⁹
 - June 30, 2014 - 2017
 - Poor Investment Return: \approx **0.2% - 3.4%**
 - Expected Investment Ret: \approx **7.50%**
 - Good Investment Return: \approx **11.6% - 15.1%**
- No Other: Gains/Losses, Method/Assumption Changes, Benefit Improvements
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⁸ Based on CalPERS CAFR.

⁹ Based on CalPERS press release.



Contribution Projections Fire Safety

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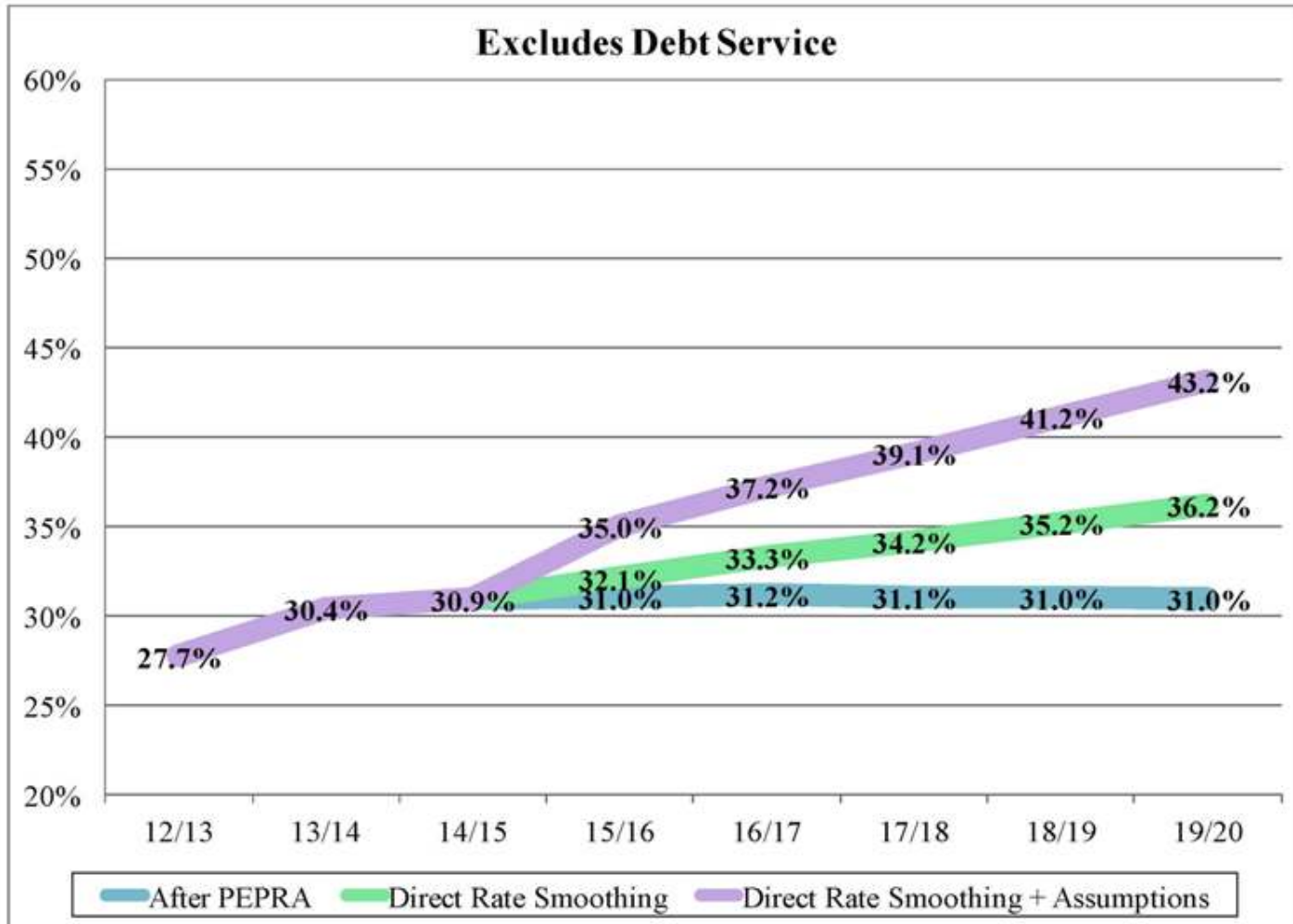
Contribution Projections

Fire Safety

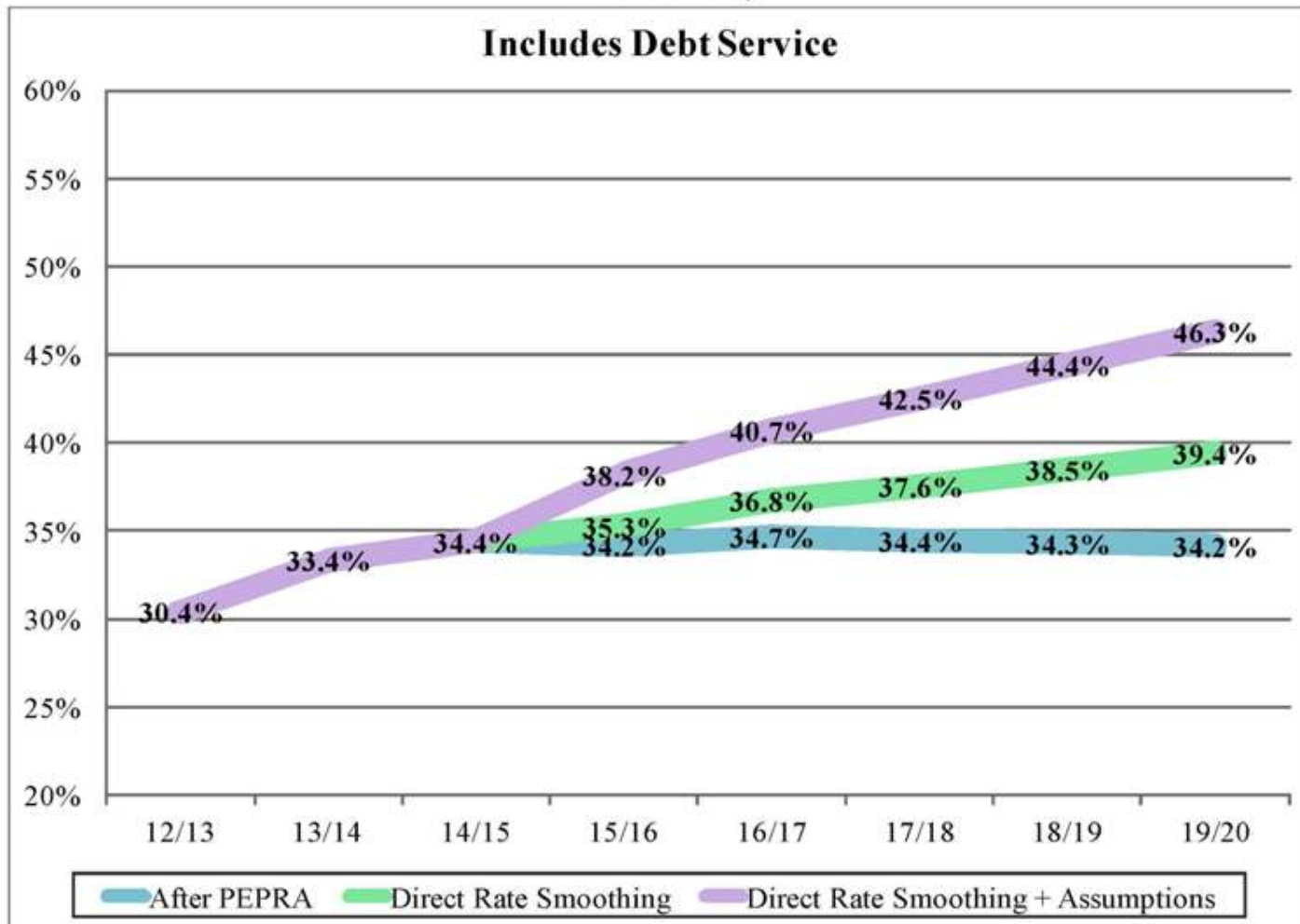
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Contribution Projections Fire Safety



Contribution Projections Fire Safety



GASB 68

■ Pension Accounting:

- GASB 68, Accounting for Employers, approved June 25, 2012
- Replaces GASB 27
- Effective 2014/15

■ Major Issues:

- Unfunded liability on balance sheet
- Expense calculation disconnected from contribution calculation
- Discount rate is
 - Expected return on plan assets when assets sufficient to pay benefits
 - Municipal bond rate when assets not sufficient to pay benefits

Likely caused CalPERS to modify contribution policy to avoid using discount rate lower than expected return (7.5%).

■ June 30, 2011 Unfunded Actuarial Liability (in Millions)

Plan	Total Pension Liability (AAL)	Fiduciary Net Position (MVA)	Net Pension Liability (UAL)
Safety Police	\$193.6	\$140.4	\$53.2
Safety Fire	153.5	109.9	43.6
Miscellaneous	485.6	385.0	100.6
Total Net Pension Liability			\$197.4

- POB (\$41.7 million at 6/30/11) shown elsewhere in financial statement



GASB 68

■ CalPERS:

- Actuaries going to Board for approval to make necessary system changes & need approval before they can do anything.
- Will likely not be ready to provide information for fiscal years < 2014/15.
- Expect to provide information but only upon request.
- Will charge small fee.



PEPRA Cost Sharing

- Target of 50% of total normal cost for everyone
- *New members* must pay greater of 50% of total normal cost or bargained amount if higher
- Employer cannot pay any part of *new member* required employee contributions
- If not agreed through collective bargaining by 1/1/18, employer may impose current employees pay 50% of total normal cost (limited to certain amounts)
- Miscellaneous Plan:

	<u>Current Members</u>		<u>New Members</u> <u>2.5%@67</u>
	<u>3%@60</u> <u>Tier 1</u>	<u>2.5%@55</u> <u>Tier 2</u>	
● Employer Normal Cost	11.0%	9.2%	6.25%
● Member Normal Cost	<u>8.0%</u>	<u>8.0%</u>	<u>6.25%</u>
● Total Normal Cost	19.0%	17.2%	12.50%
● 50% Target	9.5%	8.6%	6.25%



PEPRA Cost Sharing

■ Police Safety Plan

	<u>Current Members</u>		<u>New Members</u>
	<u>3%@50</u> <u>Tier 1</u>	<u>3%@55</u> <u>Tier 2</u>	<u>2.7%@57</u>
● Employer Normal Cost	19.1%	16.0%	12.0%
● Member Normal Cost	<u>9.0%</u>	<u>9.0%</u>	<u>12.0%</u>
● Total Normal Cost	28.1%	25.0%	24.0%
● 50% Target	14.05%	12.5%	12.0%

■ Fire Safety Plan

	<u>Current Members</u>		<u>New Members</u>
	<u>3%@50</u> <u>Tier 1</u>	<u>3%@55</u> <u>Tier 2</u>	<u>2.7%@57</u>
● Employer Normal Cost	16.6%	13.7%	10.5%
● Member Normal Cost	<u>9.0%</u>	<u>9.0%</u>	<u>10.5%</u>
● Total Normal Cost	25.6%	22.7%	21.0%
● 50% Target	12.8%	11.35%	10.5%

