



METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

BARTEL
ASSOCIATES, LLC

CalPERS Unfunded Liabilities Presentation #2

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Agenda

Contribution Projection

Additional Payments to CalPERS

Irrevocable Supplemental (§115) Pension Trust

Examples

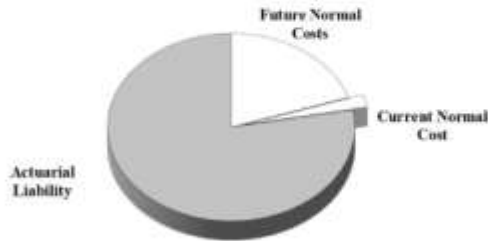
CalPERS Fresh Start

Comparison



DEFINITIONS

Present Value of Benefits
June 30, 2017



■ **PVB - Present Value of all Projected Benefits:**

- The value now of amounts due to be paid in the future
- Discounted value of all future expected benefit payments based on actuarial assumptions

■ **Normal Cost (NC):**

- Portion of PVB “earned” during current year
- Paid as a percentage of payroll by employees and employer

■ **Actuarial Liability (AAL):**

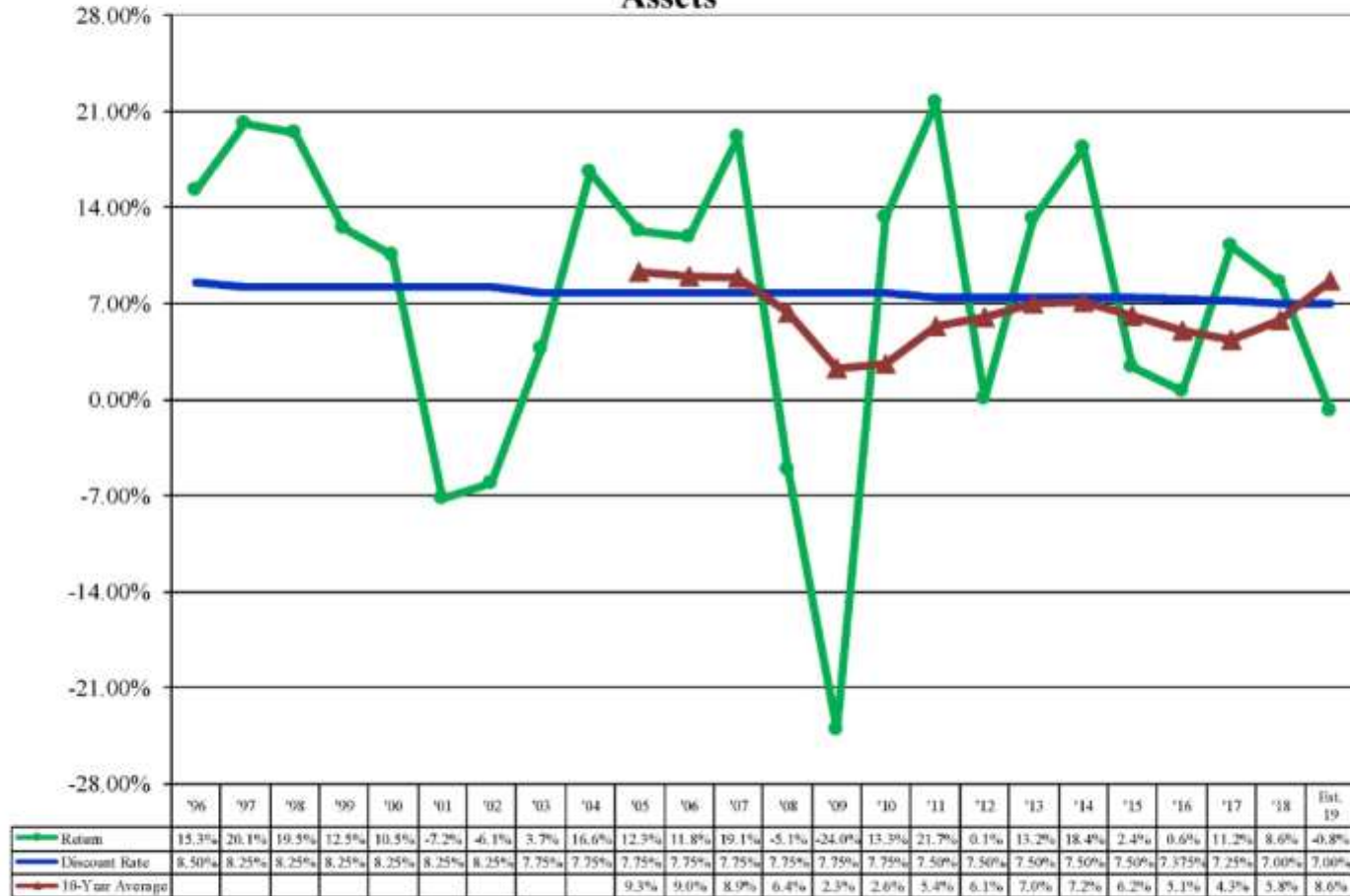
- Present value of benefits earned through valuation date: past service liability, or
- Accumulation of previous normal costs

■ **Unfunded Liability (UAL) - Money short of target at valuation date**

- If all actuarial assumptions were always exactly met, then plan assets equal AAL
- Any difference is the unfunded (or overfunded) AAL
- Every year, the actuary calculates the difference between the expected UAL and Actual UAL. This is a new layer or amortization base
- Each new layer gets amortized (paid off) over a period of time as part of the District’s contribution.

HOW WE GOT HERE – INVESTMENT RETURN

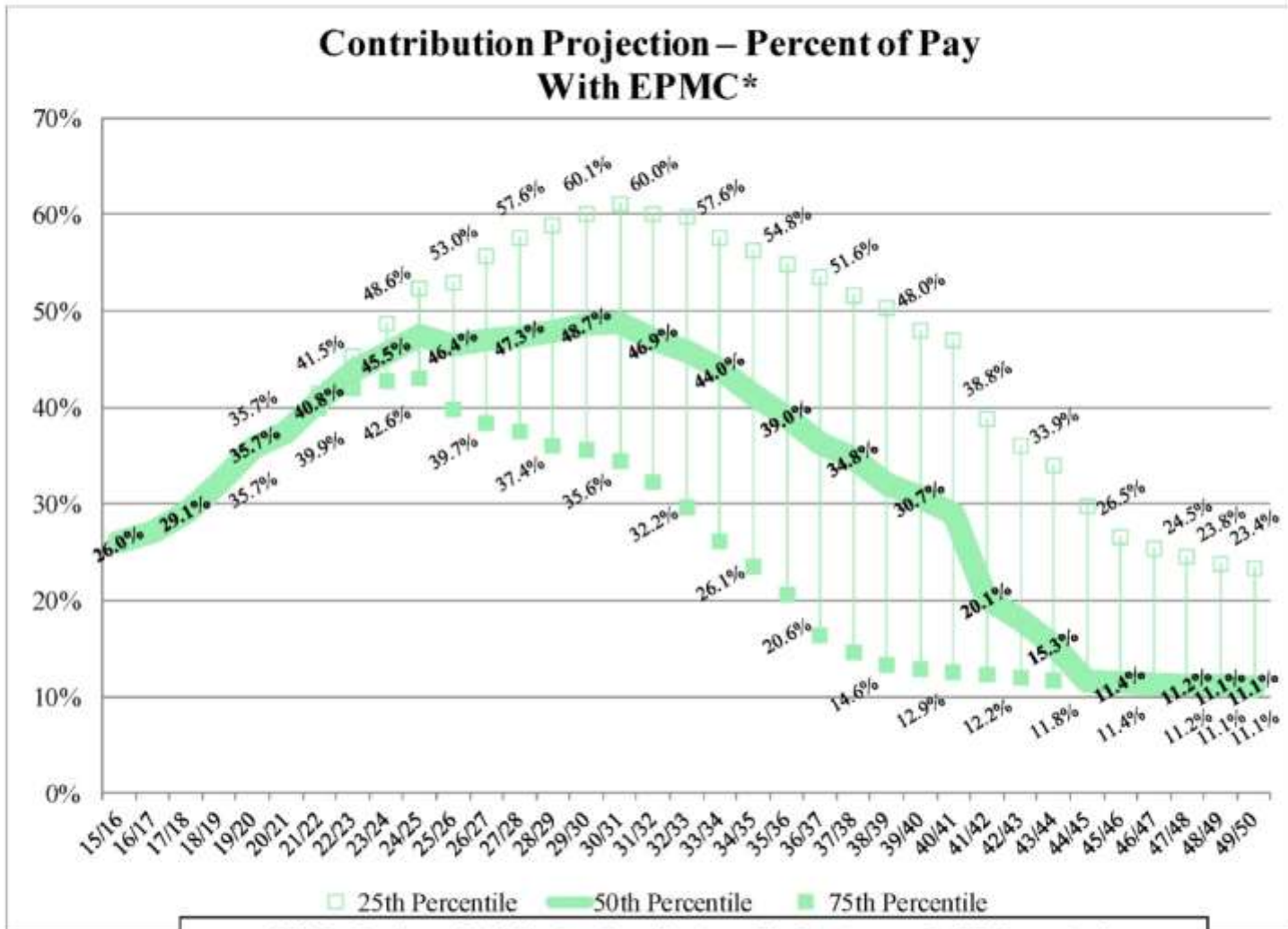
Annual Return and 10-Year Rolling Average on Market Value of Assets



Above assumes contributions, payments, etc. received evenly throughout year.



CONTRIBUTION PROJECTIONS



* EPMC = Employer-Paid Member Contributions. The District pays CalPERS-required member contributions on behalf of Classic employees



UNFUNDED ACTUARIAL LIABILITY

- Unfunded Actuarial Liability = \$618,524,347 at 6/30/17
 - UAL = \$ 638,852,449 at 6/30/19
 - Projected UAL Payments = \$ 1,255,854,329 beginning in FY 19/20
 - Total Interest = \$ 1,255,900,000 - \$ 638,900,000 = \$ 639,200,000

- FY19/20 payment on UAL is \$46.7 million
 - Interest = \$44.7 million
 - Principal = \$2.0 million



UNFUNDED ACTUARIAL LIABILITY

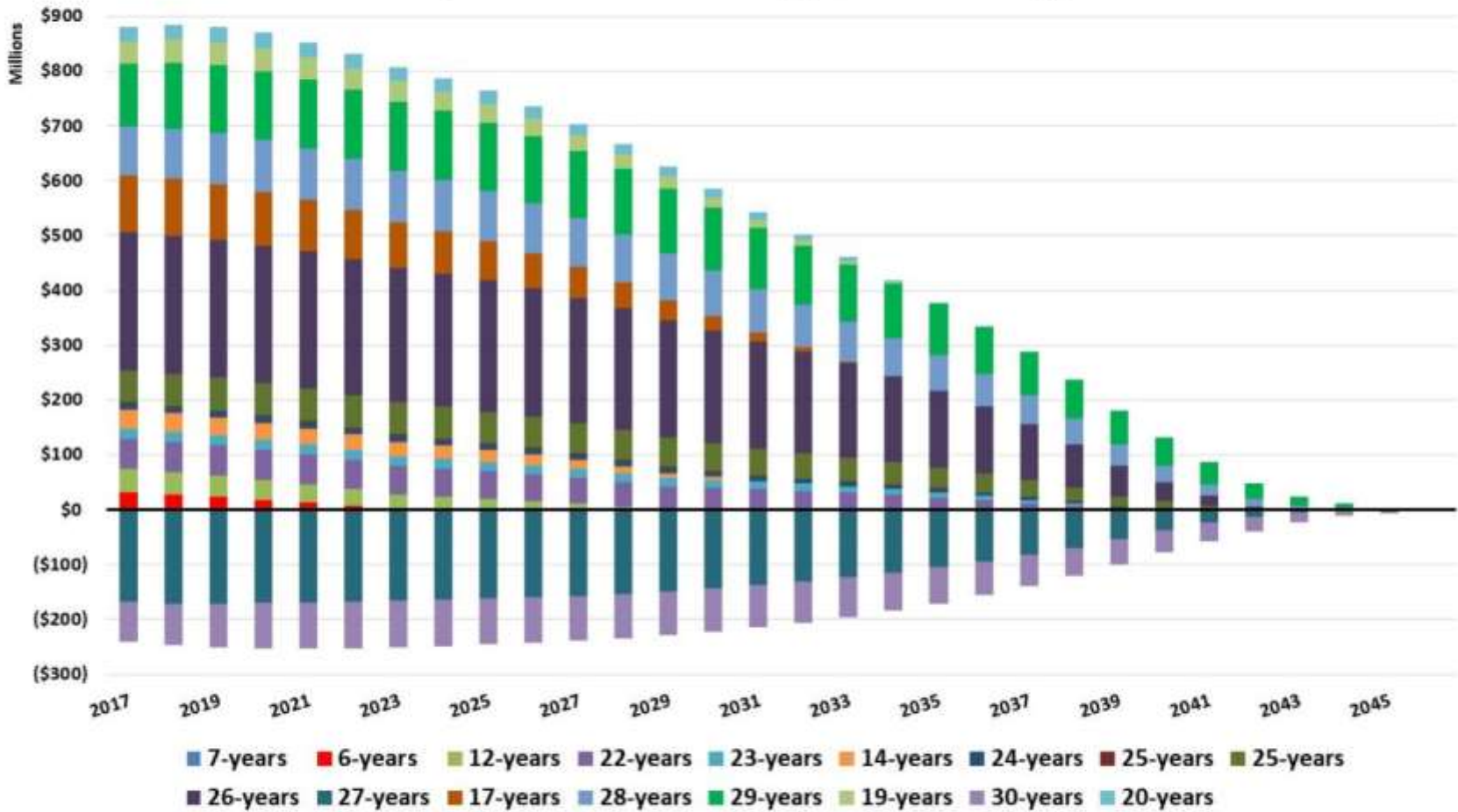
■ The Unfunded Liability is made of many “bases”

- Loss base (longest) \$115 M 29 years remaining
- Loss base (shortest) \$ 32 M 6 years remaining
- Other loss bases \$732 Million 12 to 28 years
- Other gain bases (\$241 Million) 7 to 30 years
- UAL \$638 Million

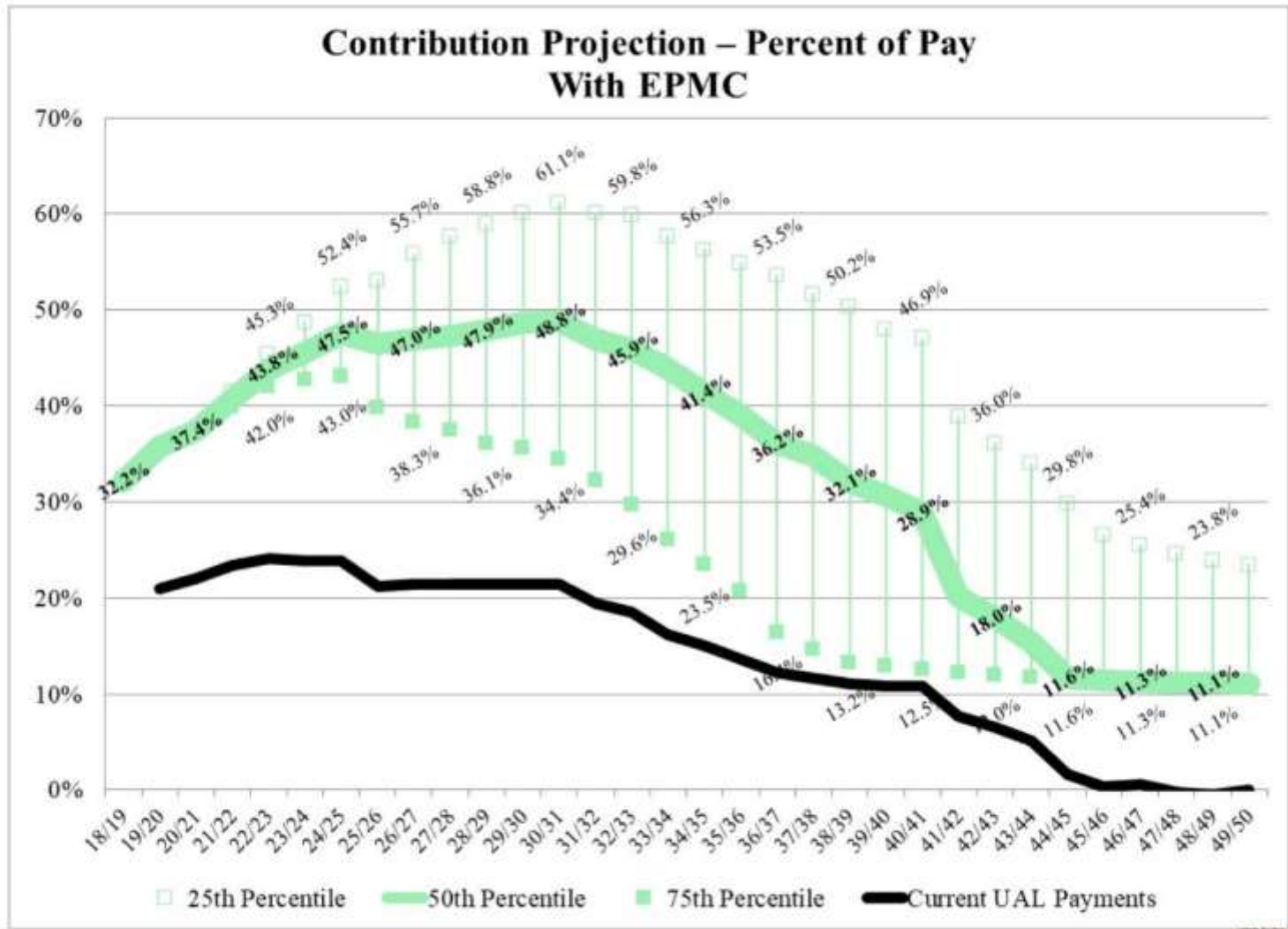


UNFUNDED ACTUARIAL LIABILITY

Projected Unfunded Liability (Current UAL Only)



UNFUNDED ACTUARIAL LIABILITY



PAYING DOWN UAL – CALPERS OPTIONS

- Make payments directly to CalPERS:
 - Likely best long-term investment return (vs Supplemental Trust)
 - Must be considered an irrevocable decision
 - Extra payments cannot be used as future “credit”
 - PEPRAs prevent contributions from dropping below normal cost
 - Option #1: Request shorter amortization period (Fresh Start):
 - Higher short term payments
 - Less interest and lower long term payments
 - Likely cannot revert to old amortization schedule
 - Savings offset when investment return is good (PEPRA)
 - “Soft” or “Unofficial” Fresh Start is popular



PAYING DOWN UAL – CALPERS OPTIONS

- Make payments directly to CalPERS (continued):
 - Option #2: Target specific amortization bases:
 - Extra contribution's impact muted by reduced future contributions
 - CalPERS can't track the "would have been" contribution
 - District could calculate & pay "unadjusted" contributions
 - No guaranteed savings
 - Larger asset pool means larger loss (or gain) opportunity
 - Paying off shorter amortization bases: larger contribution savings over shorter period
 - Less interest savings vs paying off longer amortization bases
 - Paying off longer amortization bases: smaller contribution savings over longer period:
 - More interest savings vs paying off shorter amortization bases



IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- Can only be used to:
 - Reimburse District for CalPERS contributions
 - Make payments directly to CalPERS
- Investments significantly less restricted than District investment funds
 - Fiduciary rules govern Trust investments
 - Usually, designed for long term returns
- Assets don't count for GASB accounting
 - Are considered Employer assets
- Over 180 trusts established, mostly since 2015
 - Trust providers: PARS, PFM, Keenan
 - California Employers' Pension Prefunding Trust (CEPPT) is coming



IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- More flexibility than paying CalPERS directly
 - District decides if and when and how much money to put into Trust
 - District decides if and when and how much to withdraw to pay CalPERS or reimburse Agency

- Funding strategies typically focus on
 - Reducing the unfunded liability
 - Fund enough to make total CalPERS UAL = 0
 - Make PEPPRA required payments from Trust when overfunded
 - Stabilizing contribution rates
 - Mitigate expected contribution rates to better manage budget
 - Combination
 - Use funds for rate stabilization/budget predictability
 - Target increasing fund balance to pay off UAL sooner



COMPARISON OF OPTIONS

Supplemental Trust

- Flexible
- Likely lower long-term return
- Investment strategy choice
- Does not count for GASB reporting
- More visible

CalPERS

- Locked In
- Likely higher long-term return
- No investment choice
- Reduces net pension liability for GASB reporting
- More restricted



COMPARISON OF OPTIONS

- Consider:
 - What is the District's goal?
 - Pay down UAL faster/save interest?
 - Reduce contributions in peak years?
 - Provide contribution flexibility if needed?



ADDITIONAL PAYMENT EXAMPLE

Direct Payment to CalPERS

- Additional contribution of \$100 million to CalPERS on June 30, 2019:
 - Short Base: Assumption Changes 2003 (6 years amortization), 2009 (12 years amortization) and 2011 (14 years amortization) , OR
 - Long Base: 2016 Gain/Loss (29 years amortization)
- Estimated Savings if future payments reduce to new required level

Short Base	\$100 million
\$ Savings	\$43,500,000
PV Savings @ 3%	21,800,000
Long Base	\$100 million
\$ Savings	\$153,800,000
PV Savings @ 3%	63,800,000

- Estimated Savings if future payments DO NOT reduce to new required level

No Payment Reduction	\$100 million
\$ Savings	\$275,300,000
PV Savings @ 3%	110,000,000

ADDITIONAL PAYMENT EXAMPLE

Payment to 115 Trust

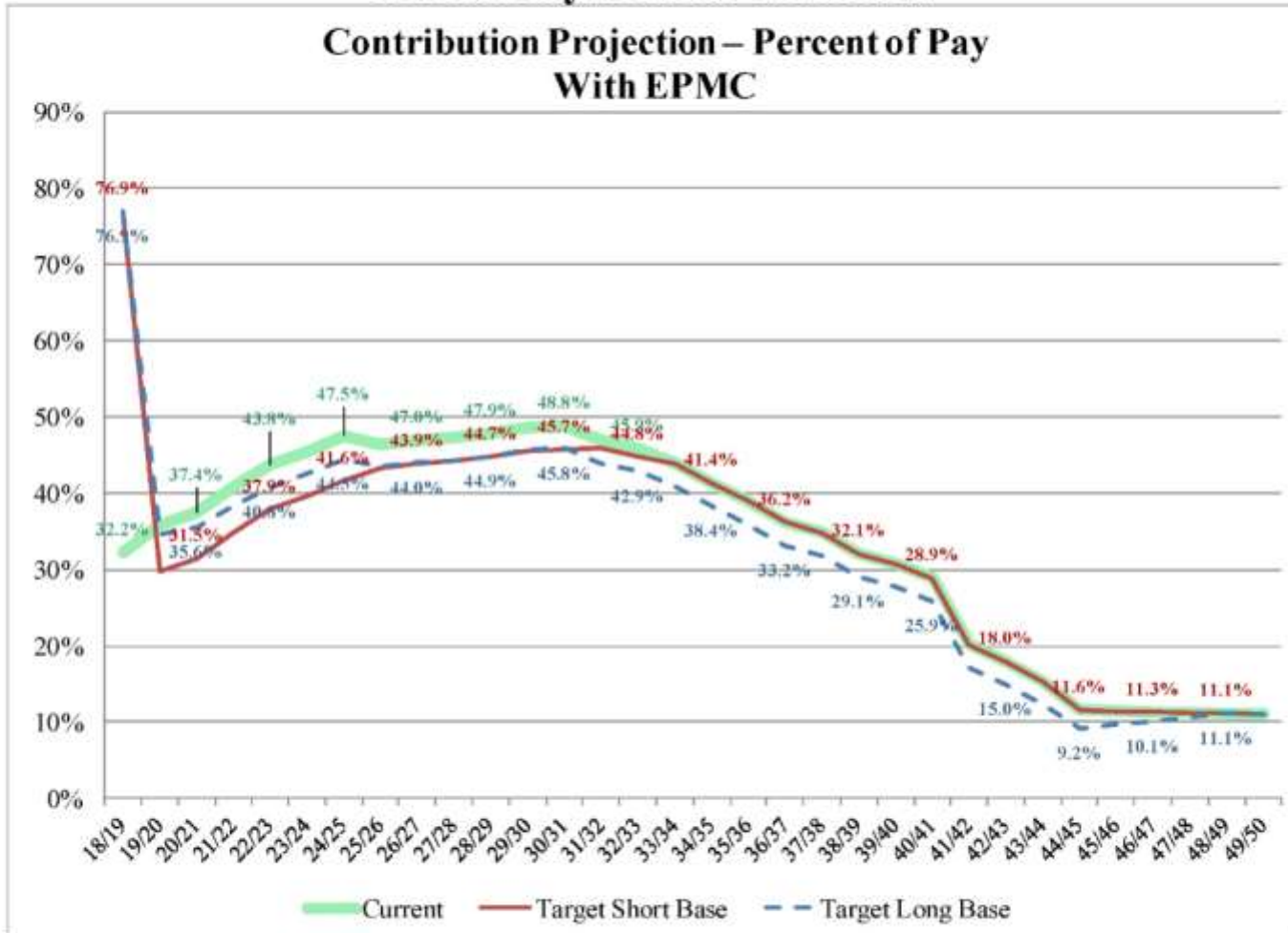
Trust Contributions	\$100 million
Trust Earnings	5%
Trust Target	
- Target Rate	41.9%
- 1st Year	2022/23
- Last Year	2033/34
\$ Savings	\$60,400,000
PV Savings @ 3%	22,000,000



ADDITIONAL PAYMENT EXAMPLE

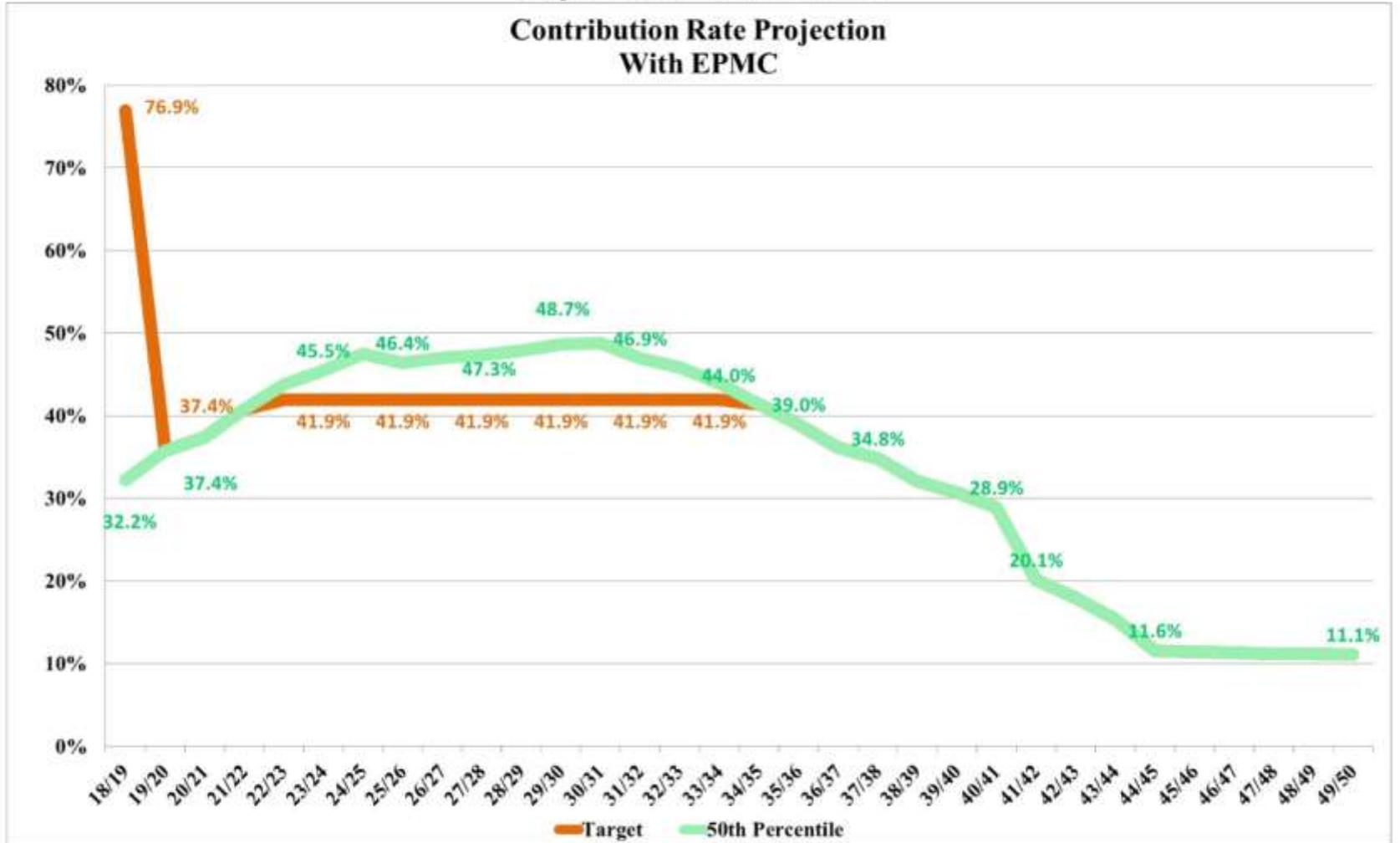
Direct Payment to CalPERS

Contribution Projection – Percent of Pay With EPMC



ADDITIONAL PAYMENT EXAMPLE

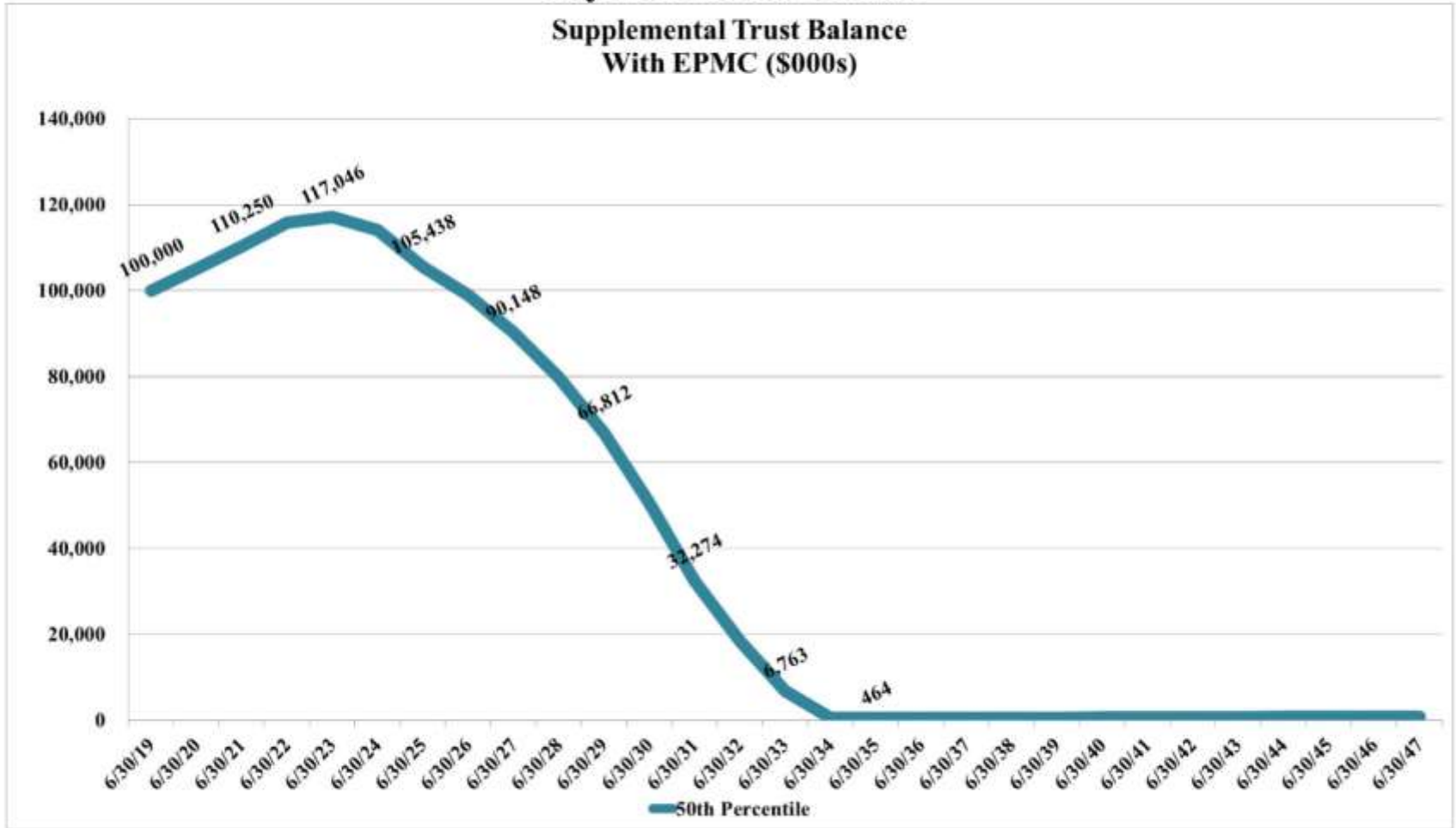
Payment to 115 Trust Contribution Rate Projection With EPMC



ADDITIONAL PAYMENT EXAMPLE

Payment to 115 Trust

Supplemental Trust Balance
With EPMC (\$000s)



FRESH START

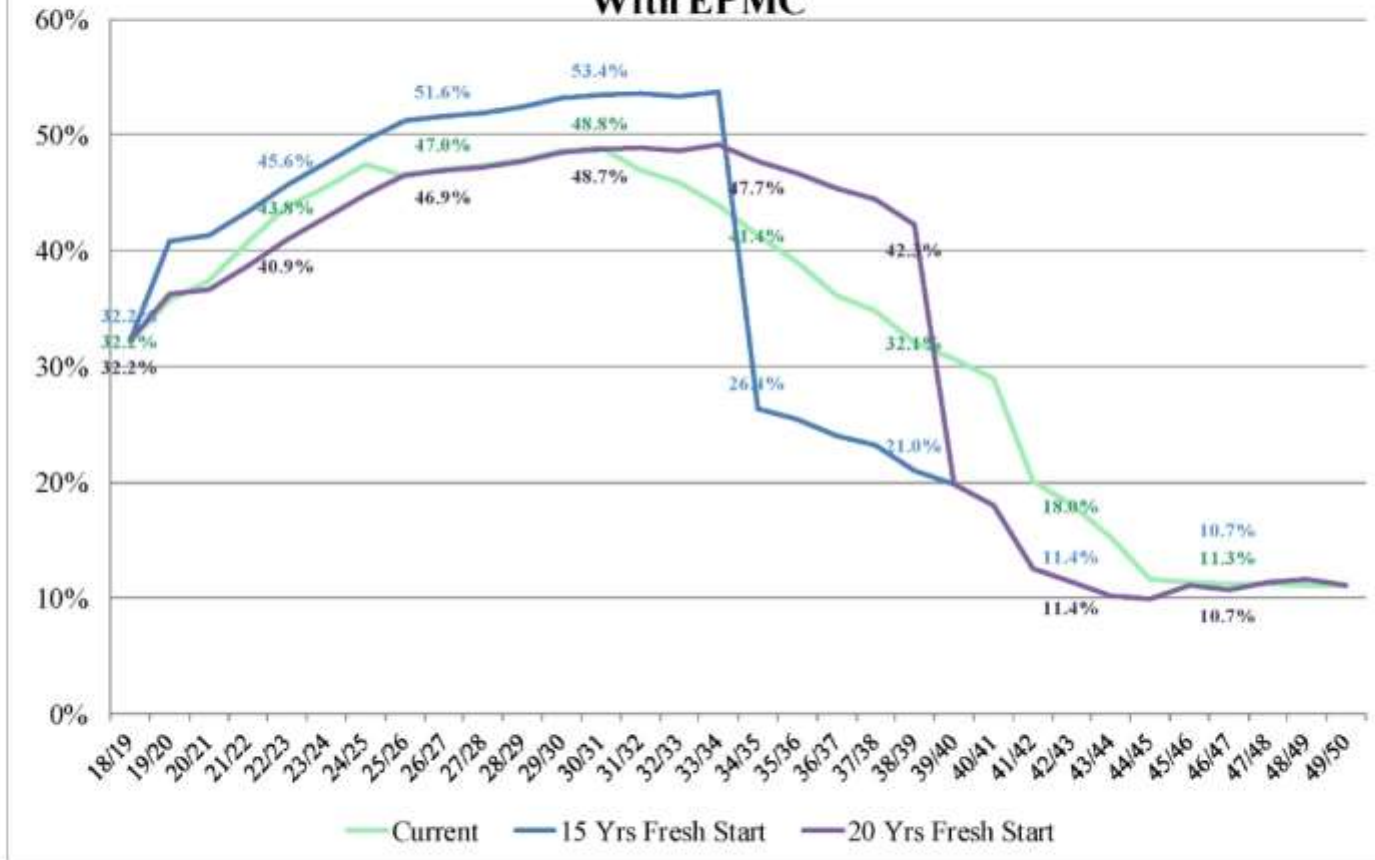
Fresh Start

- Fresh Start at June 30, 2017 valuation, first impact 2019/20 contribution rates
- Estimated Savings

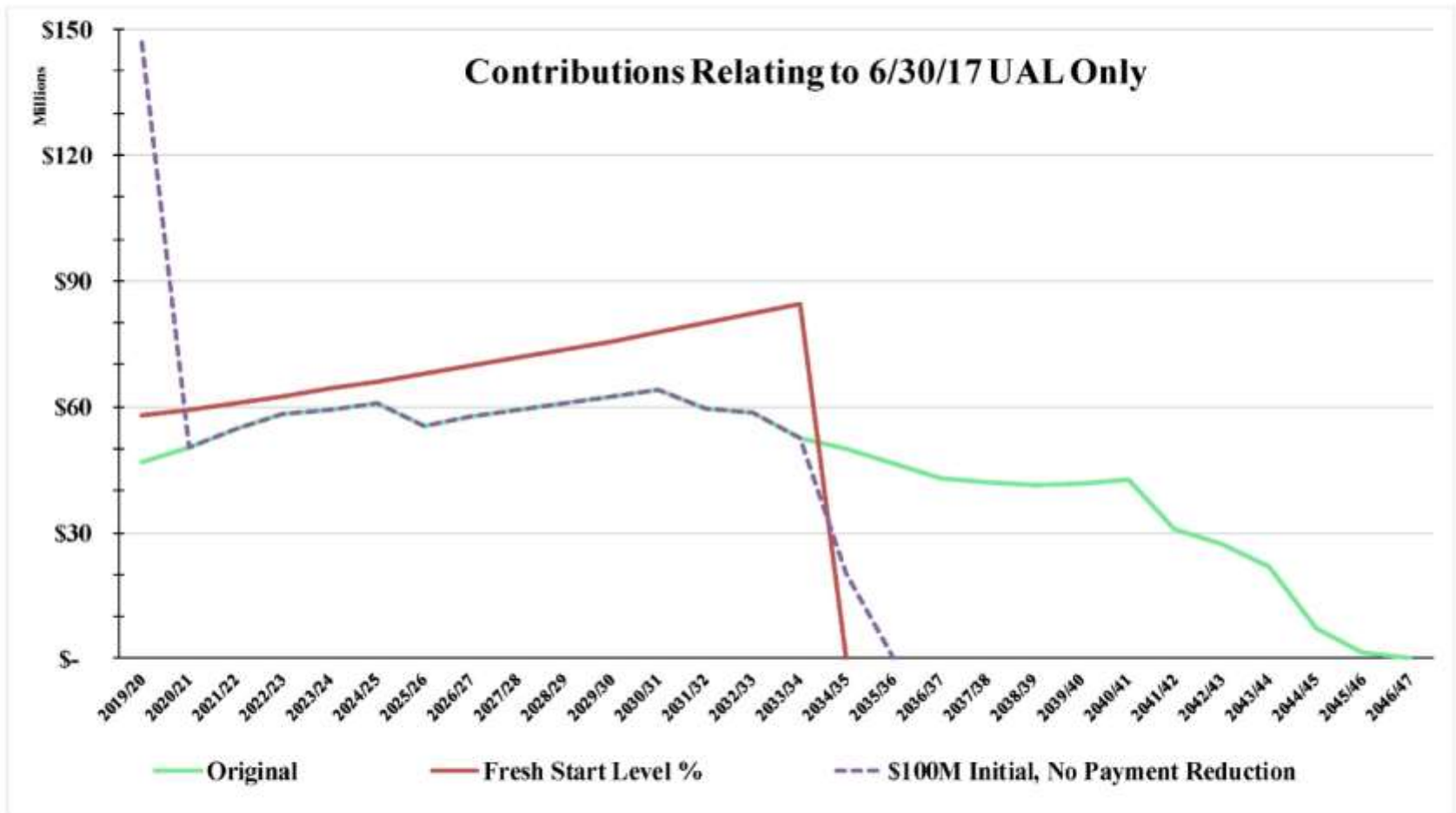
Fresh Start	20 Years
Payments	Level % Pay (Escalating)
\$ Savings	\$15,400,000
PV Savings @ 3%	1,700,000
Fresh Start	15 Years
Payments	Level % Pay (Escalating)
\$ Savings	\$201,500,000
PV Savings @ 3%	74,700,000
Fresh Start	15 Years
Payments	Level Dollar
\$ Savings	\$237,300,000
PV Savings @ 3%	90,700,000

FRESH START

**Contribution Projection – Percent of Pay
Current vs Fresh Start
With EPMC**



COMPARISON OF CONTRIBUTIONS TOWARD CURRENT UAL



COMPARISON OF CONTRIBUTIONS TOWARD CURRENT UAL

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